GIANT WAR ISSUE! 244 PAGES

SEE BACK COVER

AMAZING STORIES

APRIL
25c

THAT WORLDS MAY LIVE BY NELSON S. BO

BIG STORIES-ALL COMPL

You're in the Army now,
You're not behind the plow,
While doing the hitch
Fight flakes and itch . . .

IT MAY BE
Infectious Dandruff

GET AFTER IT NOW WITH LISTERINE

That's a swell treatment whether you're in the Service or out, whether you're a man or a woman. It's the tested treatment that has helped so many to control this troublesome condition.

Kills "Bottle Bacillus"

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The minute Listerine Antiseptic hits the scalp it starts to kill millions of germs accompanying infectious dandruff including the "bottle bacillus." This ugly little customer is held, by numerous dermatologists, to be a causative agent of infectious dandruff.

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After a few treatments you'll be delighted to see how quickly flakes and scales, inflammation and itching begin to disappear. That is what 76% of dandruff sufferers found in a carefully supervised test.

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Dear Mom:
One of the things I miss most in Camp is that good old Listerine Tooth Paste that does such a nifty job of cleansing and makes your mouth feel so clean. For Pete's sake, mail me a tube—the Post Exchange is sold out.

Be a RADIO Technician

J. E. SMITH, President
National Radio Institute
Established 28 Years

I Train Beginners at Home for Good Spare Time and Full Time Radio Jobs

More Now Make $30 $40 $50 a Week than Ever Before

Here's your opportunity to get a good job in a busy wartime industry with a bright peacetime future! There is a shortage today of trained Radio Technicians and Operators. If you're in a rut, worried because your present job will not last—find out about RADIO!

Mail the Coupon. I will send you FREE my 64-page, illustrated book, RICH REWARDS IN RADIO. It describes many fascinating types of Radio jobs, tells how N. R. I. trains you at home in spare time, explains the unique training method which I have developed and perfected during my 28 years of teaching Radio by mail.

Many Beginners Quickly Learn to Make $5, $10 a Week Extra in Spare Time

Many N. R. I. students make extra money fixing Radios in spare time while learning. I send EXTRA MONEY JOB SHEETS that tell how to do it!

Right now, probably in your neighborhood, there's room for more spare and full time Radio Technicians. The Radio repair business is booming, because no new Radios are being made. Many Radio Technicians are starting their own FULL time Radio businesses . . . making $30, $40, $50 a week.

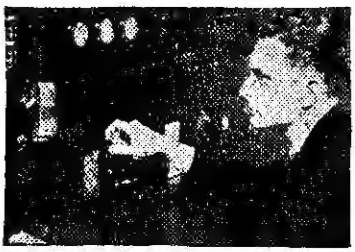
Other trained Radio men take good-pay jobs with Broadcasting Stations. Many more are needed for Government jobs as Civilian Radio Operators, Technicians. Radio Manufacturers need trained Technicians to help fill Government wartime orders. Aviation, Commercial, Police Radio and Loudspeaker Systems are live, growing fields. And think of the NEW jobs Television, Frequency Modulation, and other Radio developments will open after the war! I give you the Radio knowledge required for jobs in these fields.

How the "N. R. I. Method" Paves the Way to Good Pay

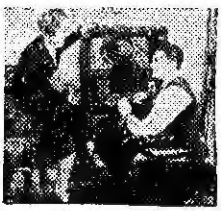
The up-to-the-minute Radio Technician must have BOTH a theoretical knowledge and a *practical* understanding of how to *apply* Radio principles. I give you thorough training in Radio Theory . . . show you how to *use* your knowledge. N. R. I. trains you "from the ground up"—covers Fundamentals thoroughly; Radio Terms, Symbols, Diagrams; Receiver Troubles, Servicing; Television; FM Receivers, Transmitters; Cathode Ray Oscilloscopes; Electronic Controls, etc. These are just a FEW of the subjects you'll cover before you finish my Course!

A Great School Helps You Toward The Rich Rewards in Radio

Throughout your training, the staff and resources of the world's largest private institution devoted entirely to training men for Radio will be squarely behind you. N. R. I. has stuck to the *one* job of training Radio for 28 years. My entire staff of more than 100 people devotes *full time* to Radio training. Our combined efforts have made the Course so *interesting*, with hundreds of pictures, charts, and diagrams—so *easy-to-grasp*, with special teaching methods designed especially for home training—that we believe you will be "old friends" with Radio almost before you know it.



Broadcasting Stations employ N. R. I. trained Radio Technicians as operators, installation, maintenance men and in other capacities and pay well.



Set Servicing pays many N. R. I. trained Radio Technicians $30, $40, $50 a week. Others hold their regular jobs and make $5 to $10 extra a week in spare time.

EXTRA PAY IN ARMY, NAVY, TOO

Men likely to go into military service, soldiers, sailors, marines, should mail the coupon now! Learning Radio helps men get extra rank, extra prestige, more interesting duties, MUCH HIGHER PAY. Also prepares for good Radio jobs after service ends. Hundreds of service men now enrolled.

Find Out What N. R. I. Can Do for YOU

MAIL THE COUPON for my FREE 64-page book. It is packed with Radio facts, things you never knew about opportunities with the Government, in Broadcasting, Radio Servicing, Manufacturing, other Radio fields.

You'll read a complete description of my Course—Extra Money Job Sheets—Consultation Service—other special N. R. I. training features. You'll see the fascinating jobs Radio offers and how to learn Radio at home. You'll read many letters from men I trained, telling what they are doing, earning. No obligation. Just MAIL THE COUPON.—J. E. SMITH, President, National Radio Institute, Dept. 3CM, Washington, D. C.

I Trained These Men

$10 a Week In Spare Time

"I repaired some Radio sets when I was on my tenth lesson. I really don't see how you can give so much for such a small amount of money. I made $600 in a year and a half, and I have made an average of $10 a week—just spare time."—JOHN JERRY, 1337 Kalamath St., Denver, Colorado.

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"For several years I have been in business for myself making around $200 a month. Business has steadily increased. I have N. R. I. to thank for my start in this field." ARLIE J. FROEHNER, 300 W. Texas Ave., Goose Creek, Texas.

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"I cannot divulge any information as to my type of work, but I can say that N. R. I. training is certainly coming in mighty handy these days." (Name and address omitted for military reasons.)

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J. E. SMITH, *President*, Dept. 3CM
National Radio Institute, Washington, D. C.

Mail me FREE without obligation, your 64-page book, "Rich Rewards in Radio."
(No salesman will call. Write plainly.)

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Front cover painting by Robert Fuqua, illustrating a scene from "That Worlds May Live"
Back cover painting by Frank R. Paul, illustrating "Stories Of The Stars"
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April 1943

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Volume 17
Number 4

"THIS WISDOM MUST DIE!"

Truths That Have Been Denied Struggling Humanity

FOR every word that has left the lips of bishops or statesmen to enlighten man, a thousand have been withheld. For every book publicly exposed to the inquiring mind, one hundred more have been suppressed—*damned to oblivion*. Each year of progress has been wilfully delayed centuries. Wisdom has had to filter through biased, secret sessions or ecclesiastical council meetings, where high dignitaries of state and church alone proclaimed what man should know.

Are you prepared to demand the hidden facts of life? Will you continue to believe that you are not capable of weighing the worth of knowledge that concerns your personal freedom and happiness? Realize that much that can make your life more *understandable* and *livable* has been left unexplained or intentionally destroyed. At first by word of mouth only, and *now* by private discourses, are *revealed* those truths which secret brotherhoods preserved in ancient temples and hidden sanctuaries, from those who sought to selfishly deprive humanity of them.

THIS *free* BOOK OF EXPLANATION

Let the Rosicrucians, one of these ancient brotherhoods of learning, tell you about these amazing truths, and explain how you, too, like thousands of others, may now use them to enjoy the fullness of life. The Rosicrucians, (not a religious organization) invite you to use the coupon opposite and receive the FREE copy of the fascinating, Sealed Book, with its startling tale of *self help*.

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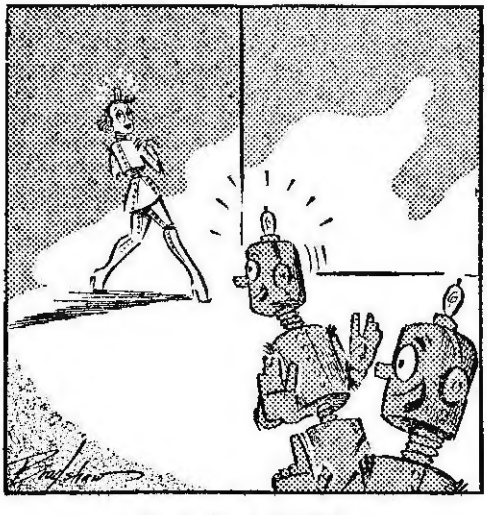
Please send me your FREE Sealed Book. I am sincerely interested in learning how I may receive these long-concealed facts of life.

Name.....

Address.....

THIS is IT, readers! The finest issue of AMAZING STORIES ever to hit the stands. And at no increase in price. Your two bits this month is worth 50c from two years ago; and $2.50 from the standpoint of the contents . . . because you get a two-dollar novel and the contents of *two* average pulp magazines. But give whatever the value in cash, we think it can never equal the entertainment value we've crammed into this big SPECIAL WAR ISSUE, which incidentally is also our 17th Anniversary. Seventeen years have passed for your favorite magazine. And seventeen, say the ancient seers, is the most significant number of all, with the exception of nine.

LAST month we told you we'd have a big issue for April, with 320 pages. Well, we haven't kept our word, and we owe you an apology, but we know you'll forgive us when we tell you we abandoned the big issue for urgent reasons—because Uncle Sam can no longer supply us with the amount of pulp paper we had last year. However, we still present Bond's complete novel and seven other specially selected stories as we planned.



"Boy! Some chassis!"

Four other stories will be carried over to the May issue and you'll get them anyway.

TWO years ago, when we announced our big 15th Anniversary issue, doubting Thomases said we probably were unloading a lot of "stinkers" on the readers. What happened then is history. AMAZING STORIES adopted the big size permanently. Now, in celebration of that fact, we give you another special issue, which represents no further increase in size, but we do want to repeat what we said two years ago, *every story in this gala issue is as special as the issue.* These stories are the best ever, take it from us.

TAKE for instance the lead novel, by Nelson S. Bond. "That Worlds May Live" thrilled us to the core when we read it. It is a planetary story of such sheer, sweeping power that we predict you'll name it Bond's best, and you know yourself that's talking big. But Bond is big, and when we run a yarn of his, we have confidence in your favorable comment.

POPULAR "character" for April is the irrepressible Juggernaut Jones. A. R. McKenzie gives us "Juggernaut Jones, Warrior" this time, and the redoubtable little fellow sells plenty of his Uneek Fliers again, but has a little battling to do to put the deal across.

SPECIAL mention surely should go to Chester S. Geier for his "Enigma of the City." It is a yarn we'd have been proud to have written ourselves. It's got the old glamor that made science fiction what it is today.

SEVERAL of our stories this month have a "special" atmosphere. We'll group them: "Valley of the Black Sun," a clever little story by Leroy Yerxa takes a very usual theme and combines it with a very unusual idea; Robert Bloch proves very convincingly that it isn't good policy to be too trusting, and especially, he says, "Never Trust a Demon"; and lastly, we have Russell Storm's odd character, Mr. Smith, in "Gold

(Continued on page 108)

NATURAL GAS GOES TO WAR

By EARL HERBERT

Some amazing facts about a very commonplace thing in our lives — the gas in our cookstove

UNTIL this country went to war natural gas was used solely as a fuel for heating or in the production of steam and electric power. But today the wartime needs of our country demands that we make better use of our great store of natural gas and convert it into aviation gasoline, lubricants, anæsthetics, synthetic rubber, and explosives, only to mention a few of the things that can be produced from these hydrocarbons.

Today we use about 2½ trillion cubic feet of natural gas per year but the known reserves in this country are placed at 85 trillion cubic feet and some estimates place it twice as high. The heating value of this gas is equal to that of 100,000,000 tons of coal or 500,000,000 barrels of fuel oil. The hydrocarbons found in natural gas are methane, ethane, propane, butanes, which are all gases, and pentones, hexanes, heptanes, octanes, and so on which are liquids that can be used as gasoline. In fact, European countries are using methane quite extensively as a gasoline substitute and it is estimated that over 100,000 autos are now being run on compressed gas thus saving about 2,000,000 barrels of gasoline to carry Hitler's army. The old gasoline filling stations now dispense the compressed gas which is kept under a pressure of 5000 pounds per square inch. In order to maintain this tremendous pressure, each container must be made from high grade steel.

Italy has many natural gas wells to supply her with methane gas while Germany has been able to produce the gas from the products of sewage fermentation. So satisfactory have been the results that over 25,000 busses, trucks, and stationary engines in this country use compressed propane and butane.

Propane also is very useful for it has a high octane value and can thus be used to run airplane engines when they are being tested thus saving precious 100 octane gas. It can also be used to improve the quality of lubricating oil by acting as the solvent used to eliminate paraffin wax, asphaltic wastes, and other impurities in the oil.

By isomerizing the butane found in natural gas, isobutane is produced which is an important substance in the production of aviation gasoline. Hexane and heptane are not valuable as motor fuel but they can be converted into benzine and toluene which are very important in producing explosives. Benzene can be further treated to produce styrene which is mixed under proper conditions in the ratio of one part styrene to three parts butadrene when peroxide is present as a catalyst to form the synthetic rubber Bura-S.

Another important hydrocarbon is acetylene which is used in the production of neoprene, another synthetic rubber, and in the production of nylon. In the production of both natural and synthetic rubber, carbon black, another natural gas product, is absolutely essential since its presence gives the rubber greater tensile strength and makes it last longer.

Natural gas can also be cracked to form hydrogen which can be combined with nitrogen to form synthetic ammonia. Ammonia is in turn made to combine with nitric acid to form ammonium nitrate used in making explosives. Hydrogen sulfide is also present in many natural gases and this can be converted into nilfuric acid which is also used to make explosives.

Two other products of natural gas are ethylene and cyclopropane both of which make excellent anæsthetics. Ethylene produces anæsthesia and renders the patient insensitive to pain in a very short time. Moreover it is superior to ether and nitrous oxide since the patient is not bothered with any after effects. Cyclopropane has only come into use as an anæsthetic in the past ten years. It is derived from either propane or propylene and its chief advantage lies in the fact that it is safer from explosions than ether and even ethylene.

Ethylene gas is also used as an agent to hasten the growing of various plants and to ripen fruit. Propylene also has been found to be effective in shortening the time taken to raise potatoes, tomatoes, grapefruit, and oranges.

The plastic industry has also turned to the products obtained from natural gas to produce their product with great success. There are also other products which are used to produce the fatty acids from which soap is made. In fact, recent experiments have resulted in a process whereby the fatty acids can be combined with synthetic glycerine to make food fats that are fit for human consumption.

There is no telling how many other useful products will result from our research into the great possibilities found in natural gas but you may rest assured that the chemists will do all they can to produce it for war uses and for the peace that will follow.

THAT WORLDS MAY LIVE

by NELSON S. BOND

CHAPTER I

Return from Luna

A VOICE roared, "All clear! Lower away!" The great ship rocked and quivered as its jet rockets flared, forming a solid, cushioning pillar on which the *Spica* lowered itself to the land cradle on Long Island Spaceport.

"Tub!" muttered Flick Muldoon, and made a hasty grab for a case of equipment slithering across the deck.

Gary Lane snapped, "Careful, Flick!" . . . which was not like Lane. It was not his nature to be brusque. But now his voice, like his manner, was strained and unnatural. His eyes were tense as he glanced at his wrist chronometer. He sighed relievedly as the wallowing motion of the space-cruiser ended in a final, weary, convulsive heave.

Blue uniformed attendants, luggage-laden, brushed by the pair of young scientists. Commands clacked with metallic authority from the brazen throats of deck audiophones. Locks wheezed asthmatically, and the warm, sweet fragrance of Earth air flooded through a nearby port.

Flick drew a deep, contented breath. "Home again! Oh, boy! Linen

Not only the Solar System was involved in this war, but the entire universe; because of an old legendary secret—the mystery of Gog and Magog!

A wave of howling men swarmed up the wall

suits instead of those damn bulgers . . . sandals instead of lead boots . . . breathable air instead of oxygen . . ."

". . . and," reminded Gary grimly, "a job of work to be done. Let's get going."

His precious portfolio securely gripped in a bronzed fist, he strode to the gangway, stood there blinking momentarily in the pleasant sunlight of Earth. Then a warm hand was on his shoulder, and a friendly voice greeted him. The voice of his superior, Dr. Wade Bryant.

"Welcome home, Gary! Have a good trip? Got lots of good shots, I hope—?"

"I got," said Gary, "plenty! Dr. Bryant, we must go to the Observatory at once. If I'm not greatly mistaken, our expedition discovered something which will tear to bits every previous cosmological theory known to science. Wait till—" He stopped abruptly, silenced by the unexpected presence of a white-haired, cherubic little stranger beside his senior. "I—er—I don't believe I've had the pleasure—?"

"No," chuckled Bryant. "But we'll soon remedy that. Professor Anjers, permit me to introduce my brilliant and indispensable young aide, Dr. Gary Lane. Gary, you've heard of Dr. Anjers, of course?"

"Of course," replied Gary respectfully. "How do you do, sir?" But his mood had changed. His eagerness was gone; he seemed almost to wish to avoid further discussion. Bryant sensed this. He looked puzzled.

"Well, Gary? Go on. You were saying—?"

"Later," said Gary briefly. He stared absently over the older man's shoulder. "Your car here?"

Flick Muldoon snorted, *"Car?* We need a truck! Hey, Doc—look at me! The human derrick. Gary's so doggone busy guarding that briefcase he won't give me a hand with— His eyes rolled in mock horror of the pyramid of equipment heaped about him.

Dr. Bryant laughed. "You'll survive, Flick, I fear. Yes, the car's right over here. If you're ready now—" He led the way. They had moved but a few paces from the cradles when someone stepped beside Gary, murmured a polite, "Shall I take your portfolio, Dr. Lane?", and started to relieve young Lane of it.

Gary started violently, jerked his hand loose. "Let go, damn you!" he blazed . . . then his eyes widened, and a flush surged upward to copper his already tanned cheeks. "Oh, I . . . I beg your pardon, miss! I had no idea . . . I mean . . . I . . ."

FOR he was staring squarely into the most hurt, most baffled, yet withal most beautiful mist-blue eyes he had ever seen. And the eyes were but one facet of this girl's gemlike perfection. She was incredible, as all dreams sprung to life are incredible. For surely such smooth-gleaming copper hair, such lips and teeth and—well, everything about her!—could exist nowhere other than in a dream.

But if she were a vision she was not his alone. For Dr. Bryant spoke apologetically. "Gary, this is Miss Powell, a new addition to our staff. She's to be your personal aide. Nora . . . Dr. Lane . . ."

"I'm sure," said the girl icily, "it will be a *great* pleasure to work with Dr. Lane." She turned to Muldoon. "If I can help *you* with your instruments—?"

Flick stared at her, goggle-eyed. "H-h-help, sugar! You just stand there and look at me; that's help enough! For you I could lift mountains!"

He proceeded to prove it, stumbling forward under a pack-mule load.

IN Dr Bryant's office at the Observatory, the gray-haired chief technician turned once more to his young assistant.

"And now, Gary, I think you have kept us in suspense long enough. I am bursting with curiosity, and I am sure Dr. Anjers must be, too. He stratoed all the way from Eurasia to hear your report on our first Luna Transit Expedition. Tell us the great surprise you hinted at."

Gary hesitated, eyeing the foreigner uncertainly.

"I—I'm not quite sure, sir—"

"Perhaps," suggested Dr. Anjers, "there is something the young man would prefer to tell you in private?"

Dr. Bryant shook his head impatiently.

"Of course not, Dr. Anjers. Come, Gary . . . we aren't diplomats, that we should keep secrets from one another. We are all brother scientists. The Foundation has asked Doctor Anjers to help tabulate the results of your findings. He is an outstanding authority on cosmic radiation—"

"I know," said Gary. "Sorry, Doctor. Afraid I'm a bit jittery. No offense meant."

The cherubic Eurasian nodded. He spoke with a hint of an accent. "And none taken, my boy. And now—?"

Gary glanced around the room swiftly. To be frank, he himself could not explain his secretive impulse. He knew he bore a vital message, one so important that it must never lightly be revealed, but in this snug group all were friends and allies. And he could not face the dread facts alone.

He drew a deep breath, groped in his portfolio, and drew forth a packet of photographic prints.

"As you all know, he said, "our expedition went to Luna to take pictures of the recent Venusian transit.* It is unnecessary to point out to you the desirability of the moon as an observational site. Its lack of atmosphere, cloudless skies, absence of dust particles, offer ideal conditions for astronomical photography.

"We had hoped, on this expedition, to finally solve the mystery of the Sun's corona. Sir Arnold Gregg came near a solution when, in 2016, he determined identity between the solar corona and Earth's Heaviside layer. But his deduction needed verification—"

"And—" Dr. Anjers leaned forward intently—"were you successful? You learned he was right?"

Gary's voice deepened, assuming a tonal quality akin to awe. "I don't know. I have never studied the photographs to see. For my first glimpse of the developed films revealed something else. Something so great, so completely illogicial yet so tremendously important that—"

He paused. "But, wait! I'm going too fast. Before I continue I should tell you that we attached to our telelens a cinematic spectroscope, the better to ascertain what change of elements was taking place within the corona.

"By this spectroscope may be determined the elements of sighted objects, also—"

"—their speed," agreed Dr. Bryant, "in relation to Earth. But I don't see—"

"You will!" promised the young man tensely. "At the moment of transit, when our cameras were focussed di-

---

*Periodically the planet Venus passes so exactly between our Earth and the sun that the planet is outlined against the sun's disc and may be seen crossing it slowly as a small, black dot. These events, known as *transits*, are quite infrequent, occurring in duos of eight years, separated by longer intervals alternating between 105 and 122 years.

Transits of Venus occurred in 1874 and 1882, in 2004 and 2012 A.D. That observed by Dr. Gary Lane and Flick Muldoon was apparently the transit of June 11, 2247 A.D.—*Ed.*

rectly on Sol, chance treated us to a phenomenon which might not happen again for untold ages. A comet from the far depths of extra-galactic space moved within the vision of our lenses. We got a complete photographic and spectroscopic record of it!"

BLANK stares met his eager pronouncement. Dr. Boris Anjers looked curious. Bryant stroked his jaw, waiting. Nora Powell laughed, her laughter a musical shard of scorn.

"How *terribly* interesting, Dr. Lane! I'm afraid you didn't film a very amusing stereop, though. A film without a plot or a hero—"

Gary glared at her irately.

"Uninteresting, eh?" he growled. "A plotless story? Very well—see for yourself! Here!"

And he tossed on the desk before his *confrères* a set of prints. Bryant, Anjers and the girl moved forward to look at them. Gary and Flick glanced at one another, wondering if their associates would read into the pictures that which they had seen and, seeing, scarcely dared believe.

For a long moment there was silence. Then the small visiting scientist raised his head. He said, "This is a very interesting series of exposures, my young friend. But what a shame your camera moved!"

Gary laughed triumphantly.

"That's just it, Doctor! The camera did not move an inch! The 'motion' in that comet is the very thing I've been talking about!"

He bent over the pictures, jabbing an excited finger at a faint white speck in the upper corner.

"Here is the story caught by Muldoon's camera. When this first picture was taken, the comet was far out in extra-galactic space. It had not yet hurled itself into the galaxy of which our solar system is a part. Its position on the two subsequent photographs enable us to determine, accurately and perfectly, the comet's spatial trajectory.

"But look at the *fourth* photograph! What do you see there?"

Dr. Bryant said bewilderedly, "Why, that's odd! The comet seems to have departed from its original trajectory; it is bent at almost a 45° angle from its former line of flight. That must be where the camera moved."

"I tell you again," swore Gary, "that camera did not move! The action you see depicted on those prints is but one of two things: either the motion of the comet, itself, or—" He breathed deeply, then plunged—"or the effect worked upon the comet's light-rays by its presence in our galaxy!"

DR. ANJERS glanced at him with swift concern. "What is that? Our galaxy! I am afraid you have been overworking, my young friend—"

"Just a moment, Doctor! I have further proof." The younger man's hands dug into his portfolio. "Dr. Bryant, let me ask you a question. If you were asked to declare the most baffling of all astronomical puzzles, what would you select?"

"Why—why, I suppose the 'red shift', Gary."

"Exactly! From the early Nineteenth Century to this day, one riddle which has amazed and confounded scientists is the apparent movement of our universe. According to all evidence, our universe is composed of a multitude of galaxies—each of which is running away from all others at unbelievable speed.

"This we know because of the 'red shift'—which one might call the 'Doppler effect applied to light, rather than to sound. When one star, comet or galaxy approaches another, pressing its

light waves upon its neighbor, the cosmic body's light waves are shortened. They shift toward the violet side of the spectrum.

"Similarly, a *receding* luminary pulls its waves—and the pitch of its light is indicated by a 'red shift.'

"Observation has taught us the tragic falsehood that everything in the universe is running away from all else. We have learned to believe in an 'expanding universe'.

"But—" Once again Gary placed his finger upon the photographs—"study these margins! These fine lines are the spectrographs of the comet you have just seen. Do *they* agree with our established theories?"

Dr. Bryant stared.

"But this is incredible, Gary! If the comet in your pictures were nearing our galaxy—as it undoubtedly was—it should at all times exhibit a violet shift. But, instead, it shows here a *red* shift up to the moment of its departure from its normal course—and thereafter a violet shift!"

And he looked at Lane, wide-eyed and wondering. Dr. Anjers also studied the younger scientist with respect.

Asked the Eurasian, "And the conclusion you draw, my young friend?"

"There is," said Gary seriously, "but one conclusion possible. Science has erred for almost three centuries. Our universe is *not* expanding. All other galaxies are *not* racing headlong from our own. The Greater Universe is steadfast and secure. It is only our little solar galaxy which moves. And we—*are contracting!*"

CHAPTER II

The Deadly Radiation

NORA POWELL was frankly out of her depth. It showed in her eyes, and in the petulant protrusion of her lower lip. She asked, cool gaze studying her new superior, "Would you be kind enough to explain that more fully, Dr. Lane?"

Gary needed no urging. It was this theory which was responsible for his unusual curtness, for his irate explosion at the rocketdrome, for the preoccupation that had marked his return flight from Luna to Earth.

He wanted most desperately to convince his superior, Dr. Bryant, and all his other associates, that this startling discovery was not lightly to be dismissed.

Furthermore—and it surprised Gary Lane to find the desire within him—he wanted to prove to Nora Powell that he was not, in truth, the ogre she now believed him. That there had been an excuse for his rudeness.

So he spoke, setting forth the arguments thought out during the flight from Earth's satellite.

"You are all familiar," he said, "with the theory of the 'expanding' or 'bubble' universe.

"We approach an understanding of this by thinking of our existence—our universe of three spatial dimensions with one temporal extension—as a sphere which is *all* surface.

"Not merely a hollow sphere, you understand. *Everything* — including empty space, solid matter and energy, is on the surface of this hypersphere. Thus our galaxy constitutes one point imbedded in the surface of the sphere . . . the nearest star is another . . . the farthest still another . . . and so on with each of a billion galaxies.

"It has been suggested that an undefined 'something' is 'blowing up' this bubble, and that as expansion increases, the degree of separation between galaxies widens so that they appear to be running away from each other. The

big objection to this theory has been the insurmountable question—*if* this hypersphere is expanding, into what, since it contains all of Space and Time in itself, does it expand?

Dr. Anjers interrupted somewhat caustically.

"You reject this theory, I gather?"

"Completely," declared Gary boldly, "and definitely! It has not, nor will it ever, solve the paradoxes we observe. My belief is that though the Greater Universe may be a closed and finite hypersphere, it is not expanding, but static. And it lends itself to real and constant measurement."

Nora Powell said, "But, Dr. Lane—the principles of relativity! The value of *h*, and the Lorenz contraction—"

"Are all taken care of," insisted Gary, "if you will accept my new major premise. He pondered, briefly, how best to state his idea. Then: "Let us suppose," he said, "you are standing in the center of a floor in a large room. The walls of this room, activated by some machine, are moving away from you. If you could measure this motion spectroscopically, you would observe the phenomenon of the 'red shift'—right?"

Dr. Bryant nodded. "Yes, Gary. That is, in effect, the relationship of our galaxy to the Greater Universe as now conceived."

"Quite. But—" said Gary—"suppose that you stood motionless in that same room, and some strange force acted on you to *shrink* you! *Then* what would you see?"

The girl's eyes widened. She cried, "A—a universe running away from you!"

"And your spectroscopic analysis—?"

"Would show the red shift!" Nora whirled to the two older men. "Dr. Bryant . . . Dr. Anjers . . . he's right! Now I see what the pictures meant! The comet, entering our contracting galaxy, changed its course sharply—"

THE foreign scientist's eyes clouded with impatience behind their heavy lids. He smiled commiseratingly. "A very interesting conjecture, my young friend. But it is foolhardy to reason on such flimsy evidence. Your camera, despite your belief, may have shaken . . . your spectroscope may have been out of adjustment . . . any one of a thousand things." A chubby hand dipped swiftly into Gary's briefcase, drew forth a flat, circular tin of film. "Is this the roll on which—?"

"Don't do that!" Gary literally screamed the words, leaping forward barely in time to prevent the older scientist from opening the container. Rudely he swept the tin from Dr. Anjers' grasp, swiftly inspected the thin line of metal seal. Only after he had satisfied himself that it was intact did he think to apologize. Then: "You must forgive me, sir, please. But these are supplementary exposures; they have not yet been developed."

The small man nodded understandingly. "The fault is mine, Dr. Lane. Forgive me."

Dr. Bryant, too engrossed in his own thoughts to see the byplay, now raised his head thoughtfully.

"Nevertheless, Gary, Miss Powell raised an important point. What about our known and proven celestial mechanics?"

"My theory," said Gary firmly, "makes them even more valid. Their *truth* is not reversed -only their *meaning*. In other words, the principles of the Lorenz equation still hold true, but we must learn to interpret it from a new angle. It is not the yardstick which moves; it is the observers! We of this dwindling galaxy which, alone

in all the vastness of the Greater Universe, is becoming ever smaller!"

"But—but why, Gary? Why?"

"That," confessed Lane, "I do not know. But it is a problem we must solve. And quickly. Or—"

"Or—?" prompted Nora Powell as he hesitated.

"Or—" concluded Gary grimly—"oblivion! Unless I erred seriously in my first computations, there is a limit to the amount of shrinkage matter can withstand. And that limit is rapidly drawing near. Matter cannot contract forever. If we cannot find a way to free ourselves from the strange force being brought to bear upon us from *out there*—" Gary's hand swept the gathering dusk of Earth's twilight—"our Earth and sun, our sister planets, our galaxy—all these are doomed!"

FOR the second time within minutes, silence followed one of Gary Lane's pronouncements. But this was no moment of dubiety. Something of his deadly earnestness had communicated itself to his listeners; their voices were muted as if with awe at the magnitude of his warning. Muldoon already knew, of course, and already believed. Credence shone in the eyes of Nora Powell. Dr. Anjers' broad, fair brow was drawn; the cherubic mask of his features was marred with white lines of concentration. Dr. Bryant coughed, twisting long, capable fingers into steeples of thought.

It was the foreign scientist who broke the silence. Quietly. Carefully. In a voice which might have been gently chiding, had its accent not been thickened by a note of near-alarm.

"Aren't you," he ventured softly, "aren't you being just a little bit melodramatic, Dr. Lane? After all, this is only a hypothesis. A very new and—if you will forgive me—most implausible conjecture—"

"New," agreed Gary almost harshly. "but *not* implausible, Doctor. We *know*, don't we, Flick?" The camera expert nodded. "We know, and we have further proof. Those rolls of film offer half of it; simple mathematics supplies the rest. Flick, suppose you get to work on those exposures right away. We'll show them—"

"O.Q., Gary," said Muldoon. "I'll get at it immediately. 'Scuse me, folks!"

Dr. Anjers said, "Please, no! Don't do this just to convince *me*, gentlemen. I did not mean to imply doubt. I am skeptical, yes; what man of science would not be? But there is no hurry—"

Gary grinned at him mirthlessly.

"That's where you're wrong, Doctor. There *is* a need for haste. Every day is precious; perhaps every hour, every minute. We're not doing this merely to dispel your doubts. We're doing it because it has to be done, and as swiftly as humanly possible. The sooner mankind realizes its peril, the sooner we can take measures to do something. How long will it take you, Flick?"

"At least three hours. Maybe four."

"All right. Get going. Meanwhile, if you'll permit me, Dr. Bryant, I'd like to duck into my office. There must be a lot of accumulated correspondence to run through. Miss Powell, if you'll be kind enough to come with me—?"

"Yes, Dr. Lane."

Anjers said, "Office, yes. I have not been near my own desk all morning. Perhaps I, too, should spend a little time with my papers. So, gentlemen—"

But Dr. Bryant caught his arm. "Oh, no you don't, my friend! Lane and Muldoon need a few hours privacy, but I am much too excited to let *everyone* get away from me. Let's go to my

rooms. I must discuss this matter with someone."

"That's it, then," nodded Gary. "We'll meet in the projection room at—let's see—five p.m. That's O.Q. with everyone? So long, then. Flick, careful with those shots!"

Muldoon glared at him aggrievedly.

"You're telling me?" he retorted. "Listen, pal—to me they're fresh laid eggs, and I'm the mama hen."

Thus the meeting disbanded.

AT FOUR-THIRTY, Gary Lane spoke a last, "yours truly" into his stenoreel, snapped the switch which sent the machine into operation as a transcriber, rose and yawned vigorously.

"That," he said, "is that! Thank goodness. I don't know how I would have ever finished up without your help, Miss Powell."

Nora Powell said, "I'm glad I was of some assistance, Dr. Lane."

"Some assistance?" grinned Gary. "You were the whole works. I wouldn't have known how to answer half those letters if you hadn't been here to advise me. Say, by the way—" He glanced at her quizzically—"Am I forgiven yet? I mean about that business down at the rocketdrome?"

Nora Powell met his gaze briefly, flushed and turned away. "I—I had forgotten all about it, Doctor," she said.

"Now, that," approved Gary, "is something to really be thankful for. Well, it's almost time for our appointment. Let's go down and see how Flick's making out."

Thus it was that Gary Lane and the girl were a full half hour earlier in reaching the projection room than had been agreed. On such small hinges is the gateway of Fortune hung. For had they been ten minutes, perhaps a single moment later, the great adventure which was to befall them might have ended ere it began. Laughing Flick Muldoon might never have laughed again, and the precious evidence which he and Gary had brought back from Luna might never have been viewed by understanding eyes.

For when young Dr. Lane pushed open the projection room door, it was to peer into a chamber not brilliantly alight, as he had expected, but one Stygian-draped in darkness. Even so, he was not at first alarmed. Flick's prints must surely be ready by now, but it was quite possible the cameraman was testing his equipment. Gary called cheerfully, "Hey, Flick! Why the blackout? O.Q. to come in—Say! What's wrong?"

Because his only answer was a deep, choking groan. And even as the girl behind him mouthed an incoherent cry of warning, Gary got the illumination he had asked for—but in an unwanted way. The darkness was suddenly, fiercely stabbed with a livid flare, an undulating streamer of light from the opposite end of the room. A crackling, hissing ochre finger of light which seemed to burn with an inward malevolence of its own.

And where this dirty glare struck matter, walls and drapes, woodwork and plastic, metal instruments and decorative vines, all—with a dreadful sort of impotent homogeneity—burst into sudden and spontaneous flame! By the light of the burning furniture, Gary glimpsed a dim, uncertain figure huddled in the doorway opposite—and it was from the hands of this unknown arsonist leaped the living flame!

GARY LANE could claim no heroism for what he did; his actions were too impulsive, too instinctive, to be considered real bravery. It never occurred to him that his enemy was armed

where he was not, nor that the light-streamer devouring all else in the room could just as easily strip his flesh from his bones like tinfoil over a candleflame. All he knew was that somewhere in this room, Flick Muldoon lay hurt—perhaps dead!—and that documents on which depended the future of all mankind were being imperiled by a mysterious assailant.

Soundlessly, but with the speed of a striking panther, he hurled himself across the room. In the unreal tawny-black his body could have been, at best, but a dimly glimpsed bulk. The lethal flame did not turn in his direction, scorching him instantly out of existence. And then—

And then his shoulders met sturdy flesh with a solid impact; the stranger grunted meatily and staggered backward. Gary's hands groped, clawing, for the flame weapon . . . felt his fingers burn on superheated metal . . .

For the barest fraction of a second! Then the enemy regained his feet. Gary sensed, a rather than saw, the arm uplifting as many voices raised in sudden clamor, and the sound of running footsteps echoed from the corridor he had quitted. He was aware of Nora Powell's cry, *"Dr. Lane—look out! Oh, Gary—!"*

Then the spinning world descended with brutal force upon his temple, the gloom split asunder into a myriad whirling galaxies of fire, and he sank senseless to the floor!

"—BETTER now," said a voice from far, far away. "I think he can hear me. Gary, my boy! Are you all right?"

Gary lifted his head and groaned; opened his eyes to find himself looking up into the kindly face of Dr. Bryant. Besides the old astronomer, her mist-blue eyes wide with fear and something else Gary Lane was too dazed to decipher, stood Nora Powell, while beside her, cherubic cheeks gray with inarticulate outrage, was the small foreign physicist.

Recollection flooded back on Gary; swiveling his head he discovered that the flames which threatened the room had been extinguished. But how about—?

"Flick?" he muttered, struggling to rise. "Flick! Is he—?"

"O.Q., chum," growled Flick Muldoon, coming from behind him. "The firebug busted me, laid me out colder than a Laplander's kiss, but you got a worse smack than I did. I'm O.Q."

"And the—the films?" asked Gary fearfully.

"Safe," chuckled Muldoon, "as a pork pie at a Mohammedans' picnic. I went down, yeah—but I went down with 'em clutched to my manly buzzum! Our murderous friend, whoever he was, would have needed a canopener to get 'em out of my hands. Me, I've got instincts, I have!"

Gary was on his feet, now, and staring about him. A little unsteadily, true, but gathering strength with every moment. He said, "Then you didn't get a look at him?"

"Who, me? I haven't got eyes in the back of my head, pal!"

"How about you, No—Miss Powell?" Gary caught himself just in time, reddening as he did so. Though his mind was intent on the problem now confronting them, some hidden portion found time to be astonished that his tongue should so trick him.

"I saw him no better than you did. Perhaps not even as well. When you charged him, I ran into the corridor and screamed for help."

"And a good thing, too," appended Dr. Bryant. "The whole Observatory might have gone up in flames had help

not come immediately. Gary, that weapon—whatever it was—is the most destructive force ever unleashed by man! It burns right through anything. Wood, metal, plastic—"

"I can see that," scowled Gary. He bit his lip, an unwelcome suspicion forcing itself into his mind as he stared at the other member of their little party. "What puzzles me is—where did he come from? The arsonist, I mean. How many people are in this Observatory beside ourselves?"

"Why, scores, Gary. The laboratory men and the observers, upstairs, the students below—it was they who helped us fight the fire, you know."

"Yes. But—" Gary turned suddenly to Dr. Anjers. "Doctor—where were *you* when this fire was started?"

Anjers blinked at me mildly. "Me, my friend? Why, with Dr. Bryant in his study, of course. But, why? Surely you don't think I—?"

"I don't know what to think," groaned Gary. "While I didn't see the intruder very well, as nearly as I could judge he was just about your height and build. Dr. Bryant, you're positive Dr. Anjers was with you?"

"Of course, Gary."

"Every minute? Neither of you left the study?"

"Not for a second. We were together every moment until we heard Miss Powell's cry; then we hurried here together. Really, Gary—"

"Yes, I know," conceded Gary ruefully. "I'm sorry. But the man *did* look a little like Dr. Anjers, and—"

THE small scientist nodded sympathetically.

"Say no more about it, Doctor. You have had ample reason to be apprehensive—and to question. Judging from what I see here, you narrowly escaped a horrible death. Our foe's weapon is, indeed, a terrible one. As a physicist, I cannot understand how anything can create spontaneous combustion in such uninflammable substances as metal and plaster—"

"No?" grunted Gary. "Well, *I* can! Look here!"

He stepped to the wall upon which the ray had played most fiercely, bent and rose, sifting through his fingers a palm-full of tiny granules.

"Here's your answer. And it ties in exactly with what we were talking about earlier this afternoon. Condensation of matter!

"See those granules? They are all that remain of a space five feet wide by six feet high! Their matter has been condensed by that hellish ray. The liberation of their excess bulk in the form of pure energy was what caused them to burst into flame. There's your answer, and — Good Lord!"

He stopped, stricken by the thought which had leaped into his brain. A thought at once so terrible and incredible that he could scarce believe it. But it must be true! It was the only way this phantasmagoria made any kind of sense.

"Blind! I've been blind! Now I see it all!"

"What, Gary?" demanded Flick. "What do you see?"

"This plaster wall—contracted into a handful of pebbles," said Gary bleakly. "Our galaxy—contracting to a grim and certain death! They are both part of one and the same plot. A plot by someone — or something! — to destroy Mankind! It is not simply a blind, unreasoning force which is speeding the destruction of our solar system. It is a deliberate doom to which we are being driven. The weapon used here this afternoon is a miniature replica of that which—Flick, what did

the arsonist's weapon look like? Did you see it?"

Flick shook his head.

"Sorry, Gary. I drew a blank. I don't remember a thing."

But Nora Powell, who had stirred to an instrument panel near the crumbled wall, gasped suddenly. "I didn't see the weapon either, Gary," she cried. "But here is evidence of what it did. Look at this Geiger counter. It has gone completely mad. It has registered more than a thousand direct hits within the past half hour!"

"What?" exclaimed Dr. Bryant. "A thousand direct hits! That's impossible! Geiger counters register only the impact of cosmic rays. And the periodicity of these rays is as steadfast and invariable as—"

But Gary Lane silenced him with a great cry.

"Now I know I'm right! The Geiger counter proves it! The weapon used by our enemies shoots—*cosmic radiation!*"

CHAPTER III

"That Worlds May Live"

SILENCE, like the brooding hush of impending doom, fell over the chamber as the significance of his words drove home. For a breathless moment all speech seemed to falter in abeyance, then every voice raised as one.

"Cosmic rays!" gasped Dr. Bryant.

"A weapon which shoots gamma radiation?" echoed the cherubic Eurasian, Dr. Anjers. "Fantastic!"

Muldoon and the girl said as a single person, "Gary, you can't really believe—"

"I *must* believe," corrected Gary, "what my eyes tell me. There is only one conceivable explanation. As our chief here pointed out, the periodicity of gamma ray bombardment is one of the few invariables known to Man. Its constancy matches the monotonous regularity with which uranium transmutes to lead.

"Scientists have traveled all over the world . . . east, west, north, south . . but in every latitude and clime their

Earth receded into an ominous distance

Geiger counters measure the same tempo of cosmic ray bombardment. They have delved into the deepest mine-pits miles below ground, descended in bathyspheres to the ocean's floor, and detected no change. They have climbed the highest mountains, traversed space to our neighboring planets . . . yet everywhere the rate of bombardment remains the same.

"But here, here in this tiny room where, for an instant, a Geiger counter was bathed in the backwash of a strange, new, all-devouring flame, that instrument has registered the impact of a thousand direct hits! The conclusion is obvious. That radiation was—must have been—a concentrated discharge of cosmic rays."

Dr. Bryant passed a hand through his white hair.

"What you say is true, Gary. And it is certainly logical. Still—"

"It is not so much the logic of our young friend's deductions I question," interrupted the other older scientist, "as the fantastic corollaries which necessarily follow his premise. To admit his rightness is to concede that somewhere, someone, for some unfathomable reason, designs the deliberate destruction—"

"Of Earth!" said Nora Powell. "Not only of Earth, but of all the planets which circle our Sun. For as Gary has said, all these are bombarded, too, by cosmic rays.

"Gary, there must be some mistake. There must be some freak coincidence—"

LANE'S eyes narrowed. "That's just what it cannot be. The coincidence is too striking. Consider. For thousands of years men lived in blissful ignorance of the fact that they and their world were daily being bombarded by rays which science now has reason to believe are lethal.* During the past few hundred years men have been *aware* of this radiation, but unable to do anything about it. They can neither analyze it, duplicate it in their laboratories, nor—indeed—determine its exact nature.

"But—" And his voice tightened—"but two days ago, for the first time, a clue was found as to the possible nature of these rays; pictures were taken which may pave the way toward an understanding of this ancient mystery. And then what happened? Was it sheer coincidence that almost immediately Flick Muldoon, who hasn't an enemy in the world, should be murderously assaulted here in the heart of his own bailiwick? And that an attempt should be made to destroy this incriminating evidence?

"No! That coincidence is too great for me to swallow. It only strengthens my belief that it is not simply blind nature which is responsible for the doom to which our galaxy is being driven."

Muldoon was an easy-going man. In the tightest spots his carefree nature was wont to assert itself in gibe and cheerful banter. But now his laughter-crinkled eyes were wide with awe and wonderment. He made a vague, sweeping gesture.

"You mean, Gary, that out . . . there . . . *something* or *someone—?*"

Gary nodded. "Yes. That is what I am forced to believe. That *They*—

*Sir James Jeans' view of the cosmic rays is that they are causing the material universe to continuously dissolve into radiation. "The whole of the available evidence," he writes, "seems to me to indicate that the change is, with possible insignificant exceptions, forever in the same direction—forever solid matter melts into insubstantial radiation, forever the tangible changes into the intangible . . . there can be but one end to the universe . . . the end of the journey cannot be other than universal death!"—Sir James Jeans: *The Mysterious Universe.*

whoever *They* are, and wherever They may exist—are making a deliberate effort to destroy us."

"But," interpolated the ever-cautious Dr. Anjers, "you cannot be sure of these things, my young friend. You cannot prove them."

"Not now, no. But by the gods, I'm going to try!"

"Going to—!" Dr. Bryant looked at his young assistant, startled. "Going to try, Gary? What do you mean?"

Lane spoke slowly, putting into words for the first time the idea which had been growing within him ever since he and Muldoon had, upon Luna, chanced upon their amazing discovery.

"I mean I'm going *out there,* as Flick put it, in search of *Them* and of that weapon which is slowly but surely bringing death to our civilization. I am going to leave Earth and this galaxy and hunt in the dark depths of the Beyond for the reason conspiring against us."

"Oh, but now wait a minute, Gary," said his friend and constant companion, "I'm your buddy. I'll string along with you on almost anything. But this is going a little *too* far. Talking of leaving the galaxy. Good Lord, man, you must be out of your mind! Oh have you forgotten how to count? The fastest spaceship ever built travels at a rate of only about 7,000 miles per minute. And the nearest star, Proxima Centauri, is about four light-years away. At that rate, all that would be left of you by the time you got there would be a little heap of dried-up dust."

Lane smiled thinly. "Don't worry about that. We'll be alive when we get there."

"What! *We!* Where do you get the community spirit?"

"We," said Gary, "because you're going, too, Flick. I'll need you. And any of the others who want to come along. I think I can promise you the greatest adventure ever undertaken by human beings."

DR. BRYANT said, "Gary, what are you talking about? Muldoon is absolutely right. It would take centuries to reach the nearest star. How, then, do you expect—?"

"Centuries," acknowledged Gary, "if the ship in which we traveled had only the speed Flick mentioned. But you know as well as I that on another planet of this system dwells a race which knows the secret of achieving speed beyond that of the limiting velocity of light."

"You mean," asked Nora Powell, "the Jovians?"

"That's right."

"But they won't tell. It's their most cherished military secret. And with the entire solar system in the state of nervous unrest it has been in for years—"

"They *must* tell. It is to their benefit as well as ours. We will go to them and explain the enormity of the disaster which threatens our solar system. They are not creatures quite like ourselves, true; but they are intelligent beings. And they desire extinction no more than we. When they have learned the awful truth, I think they will lend us their secret."

Professor Anjers laughed mirthlessly. "You have much to learn about the races that people the planets, my young friend, if you think the Jovians will contribute their great secret to save the races with whom even now war threatens—"

"They will not be the only contributors. Each of the major planets will contribute its share to this adventure. *Must* contribute, for the ultimate good of all.

"From Earth—" Gary ticked the requisites off on his fingers as he spoke —"from Earth's government we must borrow the knowledge of the hyp-atomic drive which makes space-flight possible. Venus must supply us with *neurotrope,* their super-efficient fuel, the only type sufficiently condensed to enable us to leave our galaxy. The Martian people must lend us their formula for building impenetrable force-fields about space vehicles, lest a stray comet or a hail of meteoric debris met in the outer darkness bring our flight to sudden ending. And from Jupiter must come the secret of transcendent speed, through which—and *only* through which—can we hope to reach our goal."

Muldoon whistled softly. "That's a big order, Gary. *Four* big orders, in fact."

And Dr. Bryant said, "I'm afraid I can only repeat Dr. Anjers' words, Gary. You expect too much of our neighbors in asking them to give you —"

OF all his companions, only the girl, Nora Powell, offered any word of encouragement. Her eyes were shining with a great purpose, and with a great determination, too. With an almost indiscernible movement she seemed to leave the fellowship of his doubters and arraign herself at Gary's side. Her words were like the warmth of a friendly handclasp as she said:

"But they *will* give! Because they must! Dr. Lane—Gary—it's a great dream. One which we must see to fulfillment."

Gary glanced at her, pleased and gratified.

"We?" he repeated.

The girl nodded determinedly. "Yes, we. Because if you'll have me, Gary, I want to join your expedition."

"Well, now," drawled Flick Muldoon, "as far as that goes, I've been beefing a little, yeah. But on purely technical grounds. I didn't say I was going to pull a sneak on the shindig. Hell I'll try anything once. You can count me in, Gary, lock, stock, and barrel."

Gary said gravely, "Thanks both of you. And you Dr. Bryant?"

The older man smiled thinly.

"I won't deceive you, Gary. I confess I still have my doubts as to the practicality of your ambitions. Nevertheless, I'd be a poor scientist if I were to refuse to lend my small efforts to such a magnificent undertaking. Of course, you may count on me. Boris —" He turned to his Eurasian colleague—"I'm sorry our conversations are to be thus abruptly terminated by what may seem to you a somewhat impulsive decision. But there may be something in Dr. Lane's warning."

To the surprise of everyone, the rather easily-annoyed Dr. Anjers this time showed no annoyance whatsoever. Instead, his bland, cherubic face was puckered with thought, and when he spoke it was with firm decision.

"No, you are completely right, my friend. Dr. Lane has not convinced me—yet. But if he *is* right, this is no matter for slow ponderings. We must act at once. And I, too, if you will permit, would like to become a member of your party."

Gary Lane smiled, ashamed now of his earlier treatment of this staunch little scientist, of the near-accusations he had twice cast upon the little man. He said simply, "I would be proud and glad to have you with us, Dr. Anjers. Of course, we five will not be all. We must have a pilot, an experienced astrogator, and crewmen to handle the ship itself—"

"Which brings up," interpolated

Flick Muldoon with devastating casualness, "the first important question. Where you going to get this ship, Gary? And how are you going to talk the kingpins of our planet into giving you what you want?"

Gary smiled. "Obviously, we must go to Geneva and there present our argument to the members of the World Council. But—" And his eyes took on a shining akin to that in the eyes of his feminine and first-spoken comrade—"but we cannot fail. What we do is not for ourselves alone; it is a completely unselfish thing without personal benefit or profit. A quest we must successfully fulfill—that worlds may live."

And the girl's voice echoed softly, "That worlds may live . . ."

CHAPTER IV

Fugitives from Earth

"WHAT time is it?" asked Nora Powell.

Dr. Bryant looked up from the black-and-white-squared table over which he and his companion were bent, engrossed in one of mankind's most ancient pastimes.

"Er—I beg your pardon, my dear? What did you say?"

"I asked," repeated Nora, "what time it is?"

"Oh—time ? Almost four o'clock."

"Time," growled Flick Muldoon, from the other end of the balcony, "he was getting back."

"Gary, you mean?" Dr. Boris Anjers, having placed his opponent destructively *en pris*, leaned back in his chair. "Have patience, my boy. These things take time, you know, and it is a difficult mission upon which our young friend has gone."

"It's all right for you and Doc Bryant. You've got a chess game to occupy your minds. Me, I got little pink and green meemies running up and down my corpuscles. I'm going to take a walk. Want to come along, Nora?"

Nora Powell said, "No, thanks, Flick. I'll wait here for him." Then, as the restless young cameraman stalked from the piazza and the two graybeards returned to their game, she wandered disconsolately to the far end of the balcony, for perhaps the dozenth time in the hour gazed out over the most heartbreaking beauty of the scene before and below her.

This eyrie from which she looked was a modest but charming *pension* in Geneva, a rustic famed for its beautiful surroundings and delightful old-world charm. To the south lay the valley of the Arve; beyond this the gray and barren rock of the Petit Salève rose like a wall, it, in turn, overtopped by the distant, imperial slopes of Mont Blanc. The sky was the bright and unbelievable blue of mountain country. From the vale below echoed the mellow lilt of a shepherd's yodeling.

Here, after hasty preparation, had the five comrades-in-adventure established residence until Gary Lane could convince the World Council, which gathered in this traditionally neutral nation, of the urgency of their demands . . . and receive from this all-supreme body that terrestrial secret which was vital to the furtherment of their aims.*

Here had they cooled their heels for very nearly a fortnight while Gary

*Out of the bloody conflict of the Anarchist Rebellion (2197-2208 A.D.) was born, at long last, the Terrestrial World Union. National boundaries were broken down, racial cliques and prejudices were abandoned, and Earth became one single community speaking a single language. The World Council, an electoral body seated in Geneva, Unit 44a (once the Republic of Switzerland), governed planetary trade, politics and practices. —*Ed.*

wormed and forced and argued his way through hordes of underlings to finally reach the ear of those Councillors who alone could grant his request. Such an interview had finally been achieved, and today was the fateful appointment.

Alone, a few short hours ago, Lane had set forth to the Council Hall, laden with Muldoon's photographs, his own and Dr. Bryant's mathematical analyses, and all other documents necessary to prove his claims. Now his companions, placidly or nervously as their individual natures determined, awaited his return.

AS to what sort of exhibition she herself was making, Nora Powell could not say. If she was not so openly impatient as Flick Muldoon, neither was she complacently attentive like the two older scientists. She was, she thought with sudden whimsy, much like one of those ancient volcanic peaks so gloriously sharp-limned on the horizon before her: surfacely cool, but inwardly and secretly aflame with constrained eruptive fires which might at any moment burst their bonds.

The afternoon was pleasantly cool, but standing there alone on the balcony her cheeks were suddenly warm to the touch as she caught herself wondering what would be Gary Lane's reaction were he to realize how startlingly accurate was this analogy. During these last weeks, their past differences forgotten, she and the young physicist had fallen into a pleasant and easy *camaraderie*. Formalities had been swept away in the urgency of the moment, and on everything they worked together like lifelong friends.

But that, thought Nora with a thin stirring of rebelliousness, was just the trouble. That which within her had developed toward Gary Lane could not so easily be dismissed with the loose and meaningless term "friendship." It was something else, something deeper, stronger, more tremulously chaotic . . . like the subdued inner strivings of those pleasantly placid mountains.

Did he, she wondered with a strained and baffled curiosity, feel that, too? Or was he always too much the scientist to be just a plain man looking upon her . . . seeing her . . . not as a friend, but as a woman?

The sound of crisp, firm footsteps spelled an end to her thinking. She whirled to the doorway.

"Gary! You're back!"

Then her heart chilled within her at the look on his face. Never had she seen Gary Lane like this. His features were hard as if they had been cast in a mold, then frozen. His lips were whitely set, his eyes twin glittering flints of anger.

"Yes," he said harshly, "I'm back. It's all over. We're done. Finished. Washed up."

Dr. Bryant rose from his chair swiftly. "What do you mean, Gary? The Council didn't—?"

"Oh, didn't they?" Lane's bark was a mirthless shard of laughter. "They turned me down cold. Said our conclusions were erroneous, my theory a fantastic figment of the imagination. The fools! The everlasting damned fools! Don't they realize they're condemning a universe to oblivion?"

Dr. Anjers patted the younger man's shoulder soothingly, his bright cherubic face soberly consoling.

"I'm sorry, my boy. But I warned you it would be difficult. Men see no farther than the ends of their noses."

"Maybe not," grated Gary, "but they *hear* . . . oh, God, how they *hear!* That's what killed our chances. Somehow or other they got a rumor of what

was in the wind. They had been warned in advance of who I was and what I wanted; when I started explaining, showing my photographs, they just sat back and smirked at me with that *'Yes, yes, we know all about it; isn't it a pity that one so young should be deranged?'* look on their smug, complacent faces."

"*Heard* of it?" cried Nora. "But how could they have heard of it?"

Lane shook his head doggedly. "That's what I've been asking myself ever since I left the Council Hall. To the best of my knowledge, not a living soul knows our secret except us five."

"And," reminded Dr. Anjers, "one other."

"One other?"

"The marauder in the observatory."

LANE was silent for a moment. Then he nodded. "That's right. I'd almost forgotten. *Their* ambassador. It's his diabolic hand again. It must be. Lord, if we had only caught him that day. If we only had some idea who he *was*—"

The door opened again, and Flick Muldoon burst in jubilantly. "Great howling snakes, folks, look who I found wandering around down on the streets like a roaming comet! That old star-shooting son-of-a-gun himself—Oh, golly, Gary! You're back! What'd they say, pal? Do we get the ship? Is everything set?"

"Not set," corrected Gary. "Settled!" And told him what he had told the others.

Muldoon's ruddy face fell. "Well, I'll be damned!" he whispered. "And to think Earth's government set them dumb lunks up in power to rule mankind's affairs! What are we going to do now? We can't give up just because—"

"I think," suggested Nora, "the first thing you'd better do, Flick, is introduce your friend. This must all seem rather mysterious and awkward to him."

"Oh, my golly!" gulped Flick. "I almost forgot. I'm sorry, Hugh. Doc, you remember Hugh Warren, don't you?"

"Warren?" Dr. Bryant's gaze turned querulously toward the tall, fair, smiling young man in the doorway. The newcomer was dressed in the respected gold-trimmed blue of the Solar Space Patrol. His even features were tanned to a cinnamon hue by long exposure to the raw, unshielded radiations of the void. The old scientist's eyes lighted with belated recognition. "Not young Hugh Warren who used to study Celestial Astrogation at the Observatory?"

The spaceman grinned, stepping forward to wring the older man's hand with phalange-crushing enthusiasm.

"The same, Dr. Bryant," he chuckled. "I've never forgotten those courses in Silly Ass. Most fun I've ever had . . . and I've had plenty since that. Lord—" He made the rounds, ending beside Gary Lane, about whose shoulders he threw an arm in warm, masculine affection—"Lord, it's good to see you earth-lubbers again! You haven't changed a bit, Gary. You look a little more sober and settled down. But, then, they tell me marriage does that to a guy . . ."

"Marriage?" echoed Lane blankly.

"Why—why, yes. Isn't this young lady—?"

"No. This is Miss Powell, my assistant. And the gentleman beside Dr. Bryant is Dr. Boris Anjers. Dr. Anjers, Lieutenant Warren."

Dr. Anjers said politely, "It is always a pleasure to meet friends of my friends. But hasn't Dr. Lane made a small mistake? If my poor eyesight

does not deceive me, your markings are not those of a space lieutenant—"

Warren grinned. "That's right. S'prise, folks! The Council up and made me a Captain, on account of me and my boys were lucky enough to salvage a smashed liner out of the Bog.* That's why I'm here in Geneva. Waiting to take command of my new ship, the sweetest, smoothest, little whipper-dipper of a cruiser you ever laid eyes on. Boy, is it ever a honey! All the latest equipment—"

"Cruiser!" said Lane bitterly. "They've got lots of cruisers for routine work, but they won't even spare one old broken down jalopy for—"

Hugh Warren looked puzzled. "For what? What's the gripe, chum? You look like you'd just found a bug in a raspberry."

"It's worse than that," said Gary. And he told Warren the whole story briefly, beginning with the lunar expedition and ending with the recital of his recent interview.

AS LANE spoke, the young spaceman's smile faded slowly, the laughter-born crinkles in the corners of his eyes disappeared. And Nora Powell, watching this transition, realized that beneath the surface vivacity of this newcomer there lay a core of steel, flame-hardened in the crucible of action.

When Gary finished Warren did not speak. Instead, he jammed hamlike hands deep into his trousers pockets, stalked to the far end of the balcony, and there with head lowered, shoulders hunched, his back to the others of the group, stared for long minutes unseeingly out over the distant panorama. At length he turned, his eyes gravely querulous.

"Gary . . . you're sure of what you've been telling me?"

"I only wish," said Gary bitterly, "there were some possibility of error."

"What do *you* say, Dr. Bryant?"

"There is only one thing *to* say. Gary is right; completely right. We have seen the pictures, checked and rechecked our calculations a hundred times. There is no doubt but that the time approaches, and it all too soon, when Earth's sun and its entire swarm of tributary planets will exceed the critical dwindling point and flame into sudden oblivion."

"And—and knowing these things, the Council wouldn't give you a ship, Gary?"

"They just laughed at me. Said the whole theory was ridiculous."

"Lord!" said Captain Hugh Warren, "What fools we mortals be! Of course, Gary, I can see their point . . . to a certain extent. It *does* sound mad, your idea of visiting three only half-friendly planets and asking each of them to open-handedly donate its most cherished military secret. But it's the only way . . ."

His hands came from his pockets in a swift, decisive motion.

"Yes, it's the only way. How soon can you be ready to leave?"

"How—soon?"

"There's no time for fiddle-faddle. If we're going to do anything, we've got to do it now before anything leaks, or anyone can get suspicious."

"We?" echoed Dr. Bryant bleakly.

"Of course!" Hugh Warren brushed the older man's dubiety aside with brusque and characteristic impatience. "You don't think I'm going to stand on the sidelines and let this adventure romp along without *me*, do you? And besides, I'm just what the doctor ordered: the answer to your problem.

*The Bog: spaceman's term used to designate the Asteroid Belt between Mars and Jupiter.—*Ed.*

You need a ship and a crew, don't you? And a pilot? Well, I've got the first and the second. And I'm the last myself."

NORA POWELL burst forth impetuously, "But—but, Captain Warren, we can't let you do that. You're a military man. You'd be court-martialed on charges of desertion—"

"If," grunted Warren, "they caught us. Yes. But I'm not figuring on anybody catching the *Liberty*. She's the sweetest little ether-pusher that ever came off a cradle. And as for court-martial—" He shrugged—"we'll worry about that if and when we get back. According to Gary, if something isn't done—and done quick—there won't *be* any court-martials to try traitors.

"And—" He grinned—"I'd rather be a dead felon than a live loyalist."

Thus, in a manner far different from that which the comrades had planned, was the matter arranged. Swiftly, but as inconspicuously as possible, the conspirators made their preparations, gathered their belongings together, and transported them to the Geneva rocketdrome, which, fortunately, lay directly adjacent to the private cradle-field of the Solar Space Patrol headquarters.

Amidst the hurly-burly and confusion of this place it was a simple matter for Captain Hugh Warren to delegate two members of his crew to slip to the larger drome and there, unnoticed in the bedlam of blasting explosions, milling throngs, and tearful goodbyes, move the pile of luggage from one drome to the other.

By nightfall the exchange had been completed; the plan was in readiness. There came to the *pension* a small, gnarled figure bearing a mountainous bundle. This, when unwrapped, proved to be sufficient of the familiar sky blue SSP uniform clothing to disguise every member of the party. The bearer, a man who identified himself as, "'Awkins, sir—'Erby 'Awkins, stooard o' the blinkin' *Liberty*, that's me, sir!" gravely transmitted Captain Warren's instructions as to entering the SSP rocketdrome.

"Just walk on past the sentry without sayin' nothin', folks," he advised. "I'll give the password for the crew of us. Actin' like you had maybe a drop too many might be a bit of an 'elp, but it don't matter much. The sentries will be expectin' us, and won't think a thing of it."

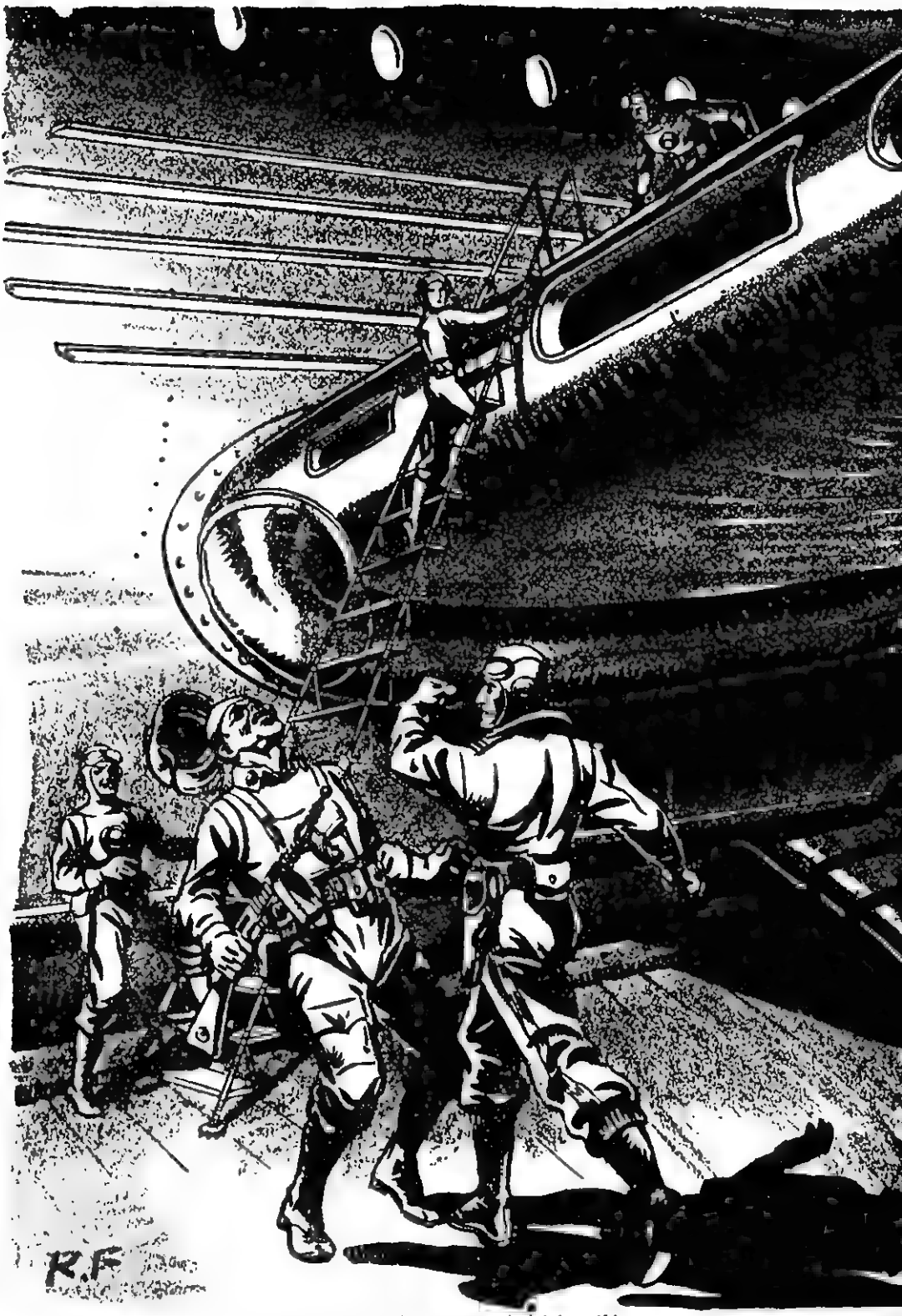
"Expecting us?" repeated Nora. "Five strangers, including a woman?"

'Erby 'Awkins grinned impishly. "Beggin' your poddon, miss, but when you get them volly-oominus blues wrapped about your own pretty self—meanin' no impertinence—it'd take a sharp-eyed sentry to tell whether you was male or female, old or young. And there's no call for them to be suspicious. Cap'n, he give five men all night leave, he did, and told them not to bother comin' back. But he reported to the Captain of the Guards that he was expectin' five of his crew to report back to headquarters at eleven o'clock. That's the hour when we'll enter the gates."

Gary said soberly, "We understand, Hawkins. I see Captain Warren has already told you what we are planning to do."

And Hawkins replied with quiet dignity, "He didn't tell me nawthin', sir; not a blinkin' word. And if I *does* 'ave my suspicions, well, wot matter? Cap'n Warren's our skipper, sir. What he decides is good enough for me and the rest of the crew."

SO AT eleven o'clock that night, as the long black spires of the circling



Lane did what must be done—and did it swiftly

mountains rose to merge with the thicker black of a clouded, moonless sky, five slightly tipsy figures lurched with shambling feet to the sacrosanct portal of the Solar Space Patrol rocketdrome.

As Hawkins had promised, they passed the gate unchallenged, the little purser volunteering the password for all of them. And as they left the gate behind, young Dr. Lane breathed a deep sigh of relief. The one hazardous point of their effort now lay behind them. Five hundred yards away lay the ship upon whose flaming jets they soon would thrust voidward on a quest of magnificent daring.

The gate crashed to behind them, and the sentry's amused drawl advised, "All right, lads, hop along back to your ship and sleep it off before your skipper finds out—Wait a minute! What's the matter there?"

His voice lifted in sharp query, and beside Gary, Nora Powell gasped in swift alarm; her right hand sought and gripped his arm in a clutch of panic fright. For, awkwardly, in the darkness, one of their party had slipped and fallen. And as he sprawled on the rough, uneven ground, he cried in a loud and decidedly unsailorlike voice, *"Oh, goodness gracious! How perfectly stupid of me!"*

It was the rotund little scientist, Dr. Anjers!

CHAPTER V

En Route to Venus

A COLDNESS gripped Lane's heart; his breath caught in his throat. In a moment the sentry's flashlight would dart its questing beam upon their group. Their shoddy disguise could brook no such probing revelation.

He guessed right. A sudden shaft of silver split the darkness dazzlingly, revealing the round, stunned face of Dr. Anjers lifted in woebegone chagrin.

And the sentry cried again, "Say, hold on! What does this mean?"

It was no time for considered action. Lane did what must be done . . . and did it swiftly. In a single, swooping motion he whirled, raced, dove for the sentry's legs. Both men went down in a flurry of tangling limbs. Arms strained to escape Gary's viselike grip that a marksman's hand might find its weapon.

But if strength and armed superiority was the sentry's, the element of surprise favored Gary. Before the patrolman could reach his weapon, before even his startled wits advised him to lift his voice in a cry of warning, Lane's arm lifted once . . . twice. The spaceman sighed—and slumbered.

Gary leaped to his feet, lashing a cry of command out over the now swiftly wakening rocketdrome.

"Take his other arm, there, Hawkins! We'll carry him. There, that's it! Now, to the ship, folks—quickly! There's not a second to lose!"

And with the aid of the little steward he swept Anjers to his feet, half-lifted, half-bore him to the entrance port of the *Liberty,* now shining like a white rectangular beacon in the darkness before them. An instant later, all five were within the craft. The airlock closed behind them, and Captain Hugh Warren was rasping swift commands over the audiophone system:

"Lift gravs! Throw all thrusts at five gees immediately! No time to warm hypos. Give her the gun! Hurry! For God's sake—!"

The shrill, high whine of straining hypatomic motors coursed through the ship, losing itself in the thunderous rumble of spluttering jets as the fuel chambers stirred to power.

A voice clacked over the audio system, "Course and trajectory, Captain?"

"Later!" roared Warren. "Later. Lift gravs—quickly!"

Then a brutal, invisible hand smashed down on Gary Lane's head and shoulders with crushing force. His knees buckled beneath him and the blood drained from his head as he pitched forward helplessly on his face, caught in the grip of a bruising acceleration. The roar of exploding jets smashed furiously at his eardrums. The ship beneath him seemed to pick itself up, shake itself like a huge, metallic beast, and leap into the shrouded darkness.

Earth, an already dwindling ball of glowing green, lay a multitude of miles beneath and behind them. Their journey was begun.

WHEN æons of agony later it seemed his laboring lungs could no longer supply his wracked body with precious oxygen, when it seemed but a matter of seconds before his very veins must burst beneath the crushing of that horrid acceleration, there descended upon Gary Lane a brief moment of vertigo. Darkness spun dizzily before his eyes. And when the instant passed, the pressure was gone. He was free to rise again from the hard metal deck to which gravitation had skewered him.

It was a measure of his fortitude that of all his companions save only the space-hardened Captain Hugh Warren, Gary should have been the first to regain his feet. Muldoon followed his example seconds later, to be followed slowly by the girl and the cockney steward, then the two older men. It was 'Erby 'Awkins who broke the labored silence.

"Well," he said with shaken satisfaction. "Well, it were touch-and-go for a moment, weren't it? But we seems to be orl right now. Wot blinkin' cheer, eh, shipmates?"

Nora said with a palpable effort toward regaining a vestige of her usual composure, "Touch-and-go is right! I've lifted gravs before, but never so swiftly nor so suddenly. If you ask me, that's no way for a girl to keep her figure."

"I'm sorry," said little Dr. Anjers contritely. "I am deeply sorry, my friends. It was all my fault. Had I not stumbled and fallen, inadvertently roused an alarm—"

"Forget it," said Flick Muldoon. "Everybody pulls a pancake once in a while. It's just tough luck that you happened to pull yours at a bad moment. The main thing is, what are we going to do now?"

He looked at Warren questioningly, but Warren's eyes were upon Gary.

"That's your cue, Gary. I'm just flying this ship; you're plotting the course."

Lane said soberly, "Well, Venus is our first logical stop, but I don't know —now. The whole Patrol will be out after us like a pack of hounds."

Hugh Warren chuckled grimly, "Let them. They'll never catch the *Liberty*. This is the fastest little ship afloat in space. We can run circles around anything that ever punched holes in the ether."

"Yeah?" said Muldoon interestedly. "What's your speed?"

"On test flights," answered Warren proudly, "about a thousand. But that was straight cruising speed. In an emergency we might be able to make as much as twelve-fifty."

"What! A cruising speed of a thousand miles per second? But — but that's over ten million miles per day!"

"And with Venus in inferior conjunction," said Nora excitedly, "we can be there in two and a half days!"

"Well, not quite. You have to allow a time lag for acceleration and deceleration. But—" Captain Warren grinned happily—"three days should do the trick. Not bad, eh, Gary?"

Gary Lane said dazedly, "Not bad! Mister, when they start giving medals for understatement, you ought to get one as big as the United Nations Victory Tower. Why, the universal record for an Earth-Venus flight is almost a day longer than that."

"Three days," supplied Warren, "eighteen hours, twenty-three and a half minutes. Which same so-called 'record' we're going to bust six ways to hell-and-gone on this little shuttle. Only—" he admitted ruefully—"our new record won't count, seeing as how it's unofficial as hell. Well, Venus it is? I'll be leaving you, then, to chart the course and trajectory. Hawkins, show our guests to their quarters. We'll meet later in the lounge."

And he vanished bridgeward.

SO SET the *Liberty* forth upon the first leg of its argosy. The next three days sped swiftly. So fraught with activity, indeed, were his waking hours, that Gary Lane found scant time in which to acquaint himself with the *Liberty* and its personnel. One thing he learned from his space commander friend: that there were, in addition to himself and his companions, fifteen souls aboard the craft. Of these, three were Patrol officers: Hugh Warren himself, his mate, Lieutenant Angus MacDonald, and the Chief Engineer, a lean, taciturn man named Sebold. Two more were subalterns: Bud Howard, the assistant engineer, and Tommy Edwards, the ship's Sparks. The enlisted men included Herby Hawkins, the steward; Tony, potentate of the galley; four able-bodied spacemen; and four blasters of the jet-chamber crew.

"We're short," Hugh Warren pointed out, "five men. The five as whom you masqueraded when you came aboard. Two of these were spacemen. We can spare them. Another two were blasters. We can get by without them, too, though it means longer shifts and harder work for the remaining four. But the other one—" He shook his head—"we're really going to need him. He was Fred Harkness, my first mate. A good spaceman with a keen mind for figures and a swift, intuitive ability at handling a ship in an emergency. If we run into any snags we're going to wish he was along."

"Then why did you let him go?" asked Gary.

Warren grinned a tight, lopsided grin. "For the same reason I gave the other four leave. Because I knew I'd never be able to convince him I was doing the right thing. He was strong on discipline. He would have wanted no part of this escapade."

That was something which had been troubling Dr. Gary Lane. He said thoughtfully, "And you, Hugh? You're not sorry?"

"That I cast my lot in with yours? Made your cause mine? No." Warren shook his head decidedly. "Decidedly not. I'm sorry I had to, on the surface at least, play traitor to the uniform I wear. But under the circumstances I believe I did the proper thing. This little emblem—" he touched the small gold rocket pinned above his heart—"is inscribed with the motto of the Solar Space Patrol: *'Order out of Chaos.'* That is the duty to which we are charged above all others. And though for a time it means flying in the face of orders and conventions, I feel the importance of our task justifies my desertion.

"If—" his jaw set tightly—"if we succeed in doing that which you say we

must, exoneration will follow swiftly and surely."

"And," said Gary softly, "if we do not?"

Warren shrugged. "The question carries its own answer. If we do not, then according to your own calculations, there will be no Hugh Warren to stand trial, nor court to sit in judgment upon his sins."

THUS sped the *Liberty* through space at a rate of speed attained by no other spaceship before her. Each passing hour found Earth dwindling smaller and dimmer behind them; each hour saw Earth's sister planet looming ever larger and brighter before.

As they flashed sunward, the Sun grew greater, too. Its radiance, downpouring upon them with devastating beneficence, was like the molten spuming of gaseous gold. Though the polarized quartzite of the ship's viewpane blacked out its brazen light, nothing could stay the increase of its heat. It grew warmer and ever more sultry in the *Liberty* despite the labors of the ship's air-conditioning system.

Flick Muldoon, shirt plastered wetly to his back, mopped his brow and groaned, "It takes a trip away from home to make you realize what a sweet little old gal Mama Earth is. Boy, I wouldn't live on Venus for all the bubbles in a beauty bath! If it's like this out here in space, what must it be like on the planet itself?"

From his seat at the control studs, Lieutenant Angus MacDonald grinned companionably.

"Not so bad as you'd think. You see, even though Venus is 25,000,000 miles nearer the sun than Earth, she's protected from the sun's glare by a cloud-layer almost three times as thick as the atmosphere layer of Terra. As a result, the planet has neither a burning hot summer season nor a frigid winter period, but a fairly pleasant and constant temperature all the year 'round."

Dr. Anjers said, "I have been fearing recently that we may find something else, too, not quite so pleasant."

"What's that?"

"The Space Patrol," said Anjers gravely, "waiting for us. We are traveling at the greatest rate of speed ever attained by a spacecraft, true, but the speed of light makes mockery of our efforts. And that is the rate at which a warning message must have winged its way before us. Is it not possible we are running directly into a trap? A Patrol fleet grimly awaiting our arrival?"

Skipper Warren shook his head. "A couple of years ago, yes, undoubtedly. But not now."

"No? Why not?"

"Because," explained Warren gravely, "the Solar Space Patrol is not an interplanetary patrol any longer. Few earthmen realize that, but it's true. The purpose for which it was formed, that of policing and providing judicial protection to all the civilized planets, has been overthrown. The militaristic ambitions of each world have heightened so greatly in the last couple of years that now every other planet in the system looks with disfavor upon the SSP, which was an invention of the Earth government.

"One by one, its garrisons have been withdrawn from Venus, Mars, Jupiter, the asteroids, until now the organization which used to proudly boast the maintenance of order throughout the whole system has become nothing more than an armed protective corps for Earth itself."

"IS THAT true?" gasped Nora Powell. "But why should the other

planets refuse to cooperate?"

"It's our own fault," confessed Warren glumly. "The Patrol was a good idea, but it wasn't organized properly. Its membership should have been drawn from the likeliest youths of each world. Instead, through selfishness or cunning or greed—I don't know why—Earth undertook the policing of the entire solar system with only the young men of her own world.

"Then again, throughout many decades we have steadfastly refused to aid the other worlds in developing spacecraft. Earth, and Earth alone, knows the secret of the construction of hypatomic motors which make spaceflight possible. It is a secret we guard jealously. That is why there exists no Venusian fleet, no Martian fleet, Jovian fleet. Only an Earth fleet which—and perhaps with reason—the denizens of all the other planets fear as an aggressive force.

"Earth, too, has the only merchant fleet. And while it is no doubt true that other planets profit somewhat by the interchange of commerce our merchantmen make possible, it is into Earth's coffers pours the wealth of the universe."

"Why—why, that's true," said Dr. Bryant. "I had never realized it before, but that is undoubtedly responsible for the known disaffection between Earth and the outlying planets. But, Captain Warren, the common people of Earth don't realize this! They, like myself, are too busy with the small details of their private lives to wonder more than casually about such things. It never occurred to me to wonder at the lack of other interplanetary merchantmen. I suppose I always took it for granted that we of Earth were doing our solar neighbors a great favor by regulating interplanetary commerce. Now I can see—"

He paused, his eyebrows knit in thought. Then—"But something must certainly be done about this situation. What can we do?"

"Right now," replied Warren gravely, "nothing. We have a more important task confronting us. But if and when this other affair is successfully cleared up, something should be finally done to create a new world order truly based on the principle of equal rights . . . with liberty and justice for all."

Muldoon said cautiously, "But, wait a minute. There's a bug in that reasoning somewhere. You say the other planets haven't learned the secret of the hypatomic motor? Well, ships crash, don't they? And ships can be captured. It seems to me that if any nation really wanted to learn that secret—"

"They could not do so," replied Warren, "any more than we in this ship could learn the actual mechanism of the motor driving us."

"What? We can't—but why?"

"Because the hypatomic motors which drive us are encased in a steel jacket equipped with a device so regulated that were any attempt made to open it and study its mechanism it would instantly explode, blowing itself and us into oblivion."

And Warren added softly, "I think you begin to understand now, my friends, why every other world fears and distrusts Earth. And why our task of pleading for their cooperation is harder than Gary expected."

CHAPTER VI

"Introducing Larkspur O'Day . . ."

IN exactly three days, one hour and forty-five minutes Solar Constant time, the *Liberty* dropped to a perfect landing in a cradle on the rocketdrome

of Sun City, seat of the Venusian planetary government.

As Warren had foretold, their arrival was unchallenged by any ship of the SSP fleet. Sole occupants of the rocketdrome's cradles were lumbering freighters and sleek merchantmen emblazoned with the emblem of Earth's merchant marine.

But if their arrival was unchallenged it was not unexpected. A host of ebony-skinned Venusians gathered about their ship instantly. As soon as their party emerged from the lock, a delegation moved forward to greet them. With but a few words of preamble they were whisked away to the Venusian Council Hall. There, serving as spokesman for the group, Gary Lane launched earnestly upon an explanation of the mission which had brought them hither.

It was a strikingly different group of beings whom Gary now spoke to than those to whom he had addressed his plea on Earth three short days ago. The Venusians were human. Upon his conquest of space, man had discovered —somewhat to his surprise and more than a little to the chagrin of the ethnologists who had predicted otherwise that nowhere (in the solar galaxy at least) had risen to planetary supremacy any race of creatures other than that represented by *Homo sapiens*.

But where on Earth of the Twenty-third century white, or Caucasian, man was the acknowledged cultural leader of his planet, here on Venus the situation was reversed. The planetary overlords were dark-skinned men of magnificent figure and intellect. The planet embraced only a minority of the white and yellow-skinned races. And these, when found, were for the most part centuries deeper in barbarism and savagery than were the negroid rulers of the planet.

To the bafflement of science, laboratory research had proven beyond the shadow of a doubt that these Venusians bore a fundamental kinship with the dark-skinned races of Earth. Blood plasma, hair structure, and other physiological phenomena proved Earth's dark children were more nearly related to the Venusians than to their own terrestrial brethren.

All this Gary Lane had known in advance. So it was with no surprise he addressed himself to the Venusian court. He did, however, despite the intensity of his purpose, in some dim recess of his mind find time to marvel that the racial characteristics of the colored men, sometimes mildly amusing at home, were here lifted and dignified by universal usage to a station of high importance.

The great vaulted Council chamber, with its curving spires and gaudily tinted walls; the bright colored raiment, the elaborate equipage and formality with which the Venusians embellished their pomp, on Earth might have exacted derision. Here they seemed the normal, the true and graceful and cultured thing.

AND if there was a certain childlike love of color and circumstances in the Venusian heart, it was no juvenile attention the Venusian overlords turned upon Lane's words. They listened carefully and thoughtfully to what he had to say, then conferred briefly amongst themselves. Finally their Chief Councillor turned to him.

"Your story is fantastic, but there is a certain ominous ring of truth in its telling. Still we do not quite understand. Why have you come to Venus? What would you have of us?"

"One of the four things," answered Gary, "requisite to our escaping our own solar galaxy that we may seek the

cause which threatens to bring about our doom. We need from you—*fuel.* Sufficient stores of precious *neurotrope,* which only your planet produces. It is the only fuel with great enough power in small enough quantity to serve our purposes."

"And how much," asked the Venusian spokesman, "of this fuel would you need?"

"A minimum of five thousand tons."

"Five thousand tons!"

The noblemen murmured amongst themselves restlessly. Their leader bent a shrewd, hard glance upon Gary.

"That is much fuel, Earthman."

"We have far to go," replied Gary. "From here to Mars . . . from Mars to Jupiter . . . then outward, beyond this universe itself. Five thousand tons of *neurotrope* is barely enough for our needs."

"It is *also* enough," reminded the other, "to fuel the whole of your Earth fleet for a trip to Venus."

"Yes," acknowledged Gary, "I suppose that's true. But this is a relatively short trip, whereas—" Then he stopped suddenly, the implication of the other's words striking him. "But surely you can't think—!"

"Our relationship with your planet," said the Chief Councillor slowly, "has not always been . . . pleasant. We have small reason to place great faith in your words and promises; none whatsoever to turn over to you a supply of the only important military weapon we possess. Unless, of course —"

Gary grasped the straw eagerly. "Yes?"

"Unless you would be willing to show your good faith by disclosing to us, in return, an Earthly secret vital to our defense."

"But," faltered Gary, "I know no such secret."

"I think you do. You came here in a spacecraft. It contains the secret we want. The knowledge of the hyp-atomic motor which drives it."

Gary's heart sank. He turned to Hugh Warren.

"Tell them, Hugh, what you told us on the trip here."

Warren did so. The councillors were courteous but unmoved. Their chief merely shrugged as he made reply.

"The situation is even worse than I thought. Earth's government is so jealous of its military secrets that it does not entrust them even to the Patrolmen who fight in its cause. No, gentlemen, I am afraid—"

IT was the girl, Nora Powell, who interrupted him.

"But, Excellency," she cried, springing forward, "you can't *do* this! You can't risk the very existence of a dozen worlds for the sake of a selfish principle. You can't turn us away like this. Don't you realize what these men have dared already? Disgrace and death at the hands of their compatriots, unless our mission succeeds. We are exiles, fugitives from Earth, fighting alone and single-handed to protect Earth and all Sol's other children from—"

The councillor said, "Yes, we have heard the news by ultrawave radio of your—er—melodramatic escape from Earth. Surely, my dear young lady, you do not think we are taken in by such a ruse? It is an exquisitely imaginative tale. But we find it scarcely credible that five learnéd scientists and a crew of Solar Patrolmen should 'steal' a ship against the will of Earth's government.

"It is more likely—*much* more likely—that your world, in order to gain a sufficient supply of our vital fuel, has planned this little drama."

"Why," burst out Flick Muldoon indignantly, "that's nonsense! Begging your pardon, Excellency, but that idea's as crazy as hell! We did this on our own hook in order to—"

But Gary stopped him before the irate cameraman's outspoken indignation should only worsen their plight. He asked quietly, "That is your final and considered decision?"

The councillor nodded for himself and his associates.

"It is. When you return to Earth you may tell your government we of Venus are not fools. And now, farewell."

He nodded to a retinue of guards. Short minutes later the dejected little group was being led back toward the spaceport.

For the most part they were silent, each lost in the overwhelming sadness of his own thoughts. Only one spoke, and he in a mutter. That one was Flick Muldoon.

"Not fools, eh? I wonder if he'd like to make book on that. . . ."

"SO," said Hugh Warren, "that seems to be that. What do we do now, Gary? Give up?"

Gary said, "I don't know *what* to do, Hugh."

"I am afraid," sighed Dr. Anjers, "our mission is a failure. Perhaps it were best we go back to Earth and throw ourselves on the clemency of the World Council."

"You maybe," said the skipper of the *Liberty* ruefully, "but not me. I'm in it too deep. Well, Gary, better make up your mind."

"We go on," decided Lane suddenly. "That's all we *can* do. Swallow this failure and go on to Mars. Perhaps there our plea will meet with more success."

"But," demurred Dr. Bryant, "if we lack sufficient fuel—"

"We must find some substitute," said Gary. But even as he said it, he knew he was guilty of wishful thinking. There was no substitute for *neurotrope*. There were many fuels capable of adaptation to the explosion chamber of hypatomic motors, but none compact enough and powerful enough to make possible the long, sustained flight which lay before them.

Warren said, "You're the doctor," and turned to the control studs, setting the stops for the next leg of their journey, that which must carry them 200,000,000 miles through space to the crimson, arid comet of Mars.

As he depressed the proper button, lights flashed and relays clicked. Small bells jangled in the bowels of the ship, setting unseen engineers and crewmen to the fulfillment of their tasks.

Skipper Warren smiled drearily, "Well, at any rate," he said, "we have the satisfaction of knowing that fuel or no fuel, we have under us the smoothest little ship in space. Mile for mile it will give us more speed per pound of fuel than any other ship—"

He stopped suddenly, lurching and grasping for support, startled into silence as the deck beneath him bucked and quivered violently. Someone shouted. Nora screamed a little scream of dismay. Only by grasping an upright of the control turret did Gary Lane keep himself from tumbling bruisingly across the room. Flick Muldoon, victim of an unexpectedly violent threepoint landing, glared up irately from the floor.

"Smoothest little ship in space, eh? It's sure acting like it now."

But Captain Hugh Warren's face had suddenly drained of color. Now his hands smashed open the ship's intercommunicating system, and he bawled, *"We're caught in an enemy*

tractor beam! All hands at battle stations! Stand by to repel boarders!"

But overlapping his command came that of a second voice, one crisp and cool and pleasantly amused,

"I shouldn't if I were you, Captain. You see, we're already alongside, with our guns trained on you. It would be wiser to bow to the inevitable."

"But what . . . who . . .?" gasped Dr. Bryant.

Hugh Warren turned from his controls with a shrug of resignation, and in a voice of gathering despair, "Troubles," he said, "never come singly. Now it's pirates."

MINUTES later he was proven correct. There came the grating clamor of spacecraft in embrace, the hiss of opening airlocks, and into the *Liberty* strode a band of Earthmen, bulgerclad and armed to the teeth.

With the swift efficiency of long practice, these men dispersed throughout the ship to accomplish their marauding aims. Only their leader and a lieutenant refrained from piratical activity. These came to the bridge of the *Liberty,* and there with an ease and calmness Gary Lane found amazing under the circumstances, addressed themselves to the skipper of the invaded vessel.

"Greetings, Captain. No hard feelings, I hope? If you'll just toss your sidearms over into the corner—There, that's better. No reason we shouldn't enjoy a pleasant little chat until my men have completed their mission."

"Mission?" grated Warren savagely. "What mission? Damn your rascally hide, we're no merchantman. This is a cruiser of the Solar Space Patrol."

The corsair chieftain chuckled pleasantly.

"Why, yes, Captain. So we noticed. That's our mission. I thought it would be a good joke to stop you—just to see if we could, you know. And as a matter of proof, in case anyone should ever contest our claim, I've asked my men to remove the insignia from the uniforms of each of your crew. Sorry to seem impolite, Captain, but if you wouldn't mind tossing me your epaulettes . . . just as a little souvenir, you know—"

Hugh Warren's face, which had been apoplectic with rage, now froze in slack-jawed wonder.

"J-joke!" he stammered. "Just to see if you could? Souvenir! There's only one pirate in space crazy enough to do a thing like this. You must be—"

The marauder smiled amiably. "Well, now," he drawled, "that's right flattering of you, Captain. Allow me to introduce myself. My name is O'Day. Larkspur O'Day."

CHAPTER VII

Moon of Madness

AND he pushed back the quartzite helmet of his bulger, exposing the whitest smile, the handsomest face, the laughingest pair of eyes, all topped by the most unruly mop of cinnamon hair, Gary Lane had ever seen. A buccaneer the man might be, but he could equally well have been an artist's model for a gay and laughing cavalier of the Seventeenth Century.

"Lark O'Day!" gasped Nora Powell.

She knew the name, as did all Earthmen and women with a spark of romantic imagination in their systems. Lark O'Day was a privateer whose exploits were so remarkable as to be almost legendary. Though a tremendous price was offered for his apprehension by the harassed merchantmen of Earth's fleet, there were few but had

a sneaking admiration for this gallant and quixotic young champion of derring-do, who, alone in this late day of ultra-civilization, carried on the traditions of an earlier Robin Hood or Dick Turpin.

Though no rare cargo of precious gems or valuable ores was safe from the attentions of Lark O'Day, it was not only such things which tempted his forays. When the traitorous rebel government of the tiny planetoid Ceres had fled its orb with a ransom of priceless gems ravaged from the imperial coffers, he it was who had apprehended the traitors, delivered upon them a swift and merciless punishment, then sent to Ceres' beauteous Princess Alicia a gorgeous crown encrusted with the finest of the stolen gems . . . retaining only (as his fee for services rendered) those jewels which found no place in the coronet.

He it also was who, when Earth's government dared not openly accuse that brilliantly ruthless business tycoon, Jeremiah Draven, of establishing slave colonies on Earth's lunar outpost, whisked the trillionaire scoundrel from his private space yacht, held him incommunicado until a court, declaring him legally dead, broke up his financial empire . . . then returned him to Earth horribly and ineradicably branded across the brow with a cicatrix which theologians identified as the biblical Mark of Cain.

And it was Lark O'Day who, for a whim, had stopped on its maiden voyage the *Orestes,* greatest luxury liner ever built by man, for the sole purpose of stealing one kiss from the ripe, bewildered lips of the newly crowned "Miss Universe."

This, then, was the nature of their attacker. And though Gary Lane knew the man to be a thief, daredevil, and desperado, he could not help but like him at first sight. Nor was even Captain Hugh Warren, who should have been furious, more than mildly amused at this latest prank of the void's piratical playboy.

He chuckled and stripped off the gold braid emblems for which O'Day asked, tossed them toward the privateer.

"Here you are," he laughed, "and welcome. I'm afraid I have no right to wear them any more, anyway. At least, that's what my commander would say."

O'Day glanced at him curiously.

"What? Say, wait a minute! This isn't the *Liberty?* You're not the ones I heard about on the radio? The ones who stole a brand new cruiser and—"

HE PAUSED, then rocked with infectious laughter. Whatever strain had existed on the *Liberty's* bridge disappeared as all joined him in his mirth. When finally the redhead had regained his composure, he picked up the fallen epaulettes, returned them to Warren with a courtly bow.

"My apologies, Captain. I am afraid I cannot take these. It appears we're both in the same boat, figuratively as well as literally speaking. And, after all, there *is* 'honor amongst thieves', you know. But—tell me? All I have heard is the World Council's side of the story. I'm sure the whole truth must be interesting. Tell me about it."

So they told him the entire tale. Of Lane's discovery, the attack in the Observatory, the World Council's refusal to grant a ship, and the subsequent theft of the *Liberty*. Of their recent adventure on Venus.

As Gary spoke, the laughter faded from the corsair's lips and eyes. A new seriousness gathered about the corners of his mouth and anger tightened his lean, lithe figure.

He interrupted, frowning "Just a

moment. These calculations of yours —you're sure they're right?"

"If mathematics is a pure science, yes."

"And the Venusian government—you say it refused to give you the fuel you need?"

"That's right," said Gary glumly, "and without it, I'm afraid—"

He shrugged. But Lark ODay turned sharply to his lieutenant. In his voice was a note which the others had not heard before. It proved beyond need of demonstration why laughing Lark O'Day could command a hard-bitten crew as his.

"Call the men, Mark. Get them aboard the *Black Star* and place every hand at battle stations. Open the gun ports. Not short range—the troposphere rotors. Prepare for immediate action. If those damned fools—"

He spun to Waren angrily. "Captain, may I request the use of your radioman and signal turret for a short time?"

"Why—why, yes," faltered Warren.

"Good! Then we'll teach those idiots to sacrifice an entire system to their own selfish greed!"

"What are you going to do?" demanded Gary.

O'Day laughed, a single explosive bark in which was little mirth. "Do? Why, I'm going to get you that fuel you need, of course! The Venusian Council knows me of old . . . and they know what the *Black Star's* guns can do. I'm going to call them now and tell them that unless they load your fuelbins to the last millimeter I'll blast Sun City off the face of their stinking planet. Come along if you want!" And he headed for the radio turret.

What happened after that was anticlimax. The effect of Lark O'Day's little speech to the Venusian Council was a measure of his greatness. He talked and they listened. They demurred and he raised his voice a note. They complained and that note became a warning note. They entered a half-hearted refusal and he stopped *asking* and started *telling* them what they must do . . . or else. They capitulated, servilely. A short time later the *Liberty* was once again nestling in a Sun City cradle; this time gorging its belly with the five thousand tons of *neurotrope* for which Gary had unsuccessfully pleaded. The only difference between this arrangement and the one Lane had suggested was that the Venusians were not paid cash on the line for the vital fuel. That was Lark O'Day's idea.

"Not a damn cent," he said. "Serves them right for being so stingy with it before. This will teach them a lesson. And—" He grinned—"if your conscience bothers you, you can pay them when we come back, if our trip is successful."

"We?" said Nora Powell. *"Our* trip?"

Lark O'Day grinned at her happily. "Why, sure," he drawled. "You don't think I'd let an expedition like this get away without *me* being aboard, do you? That's my fee for helping out in a pinch. You don't mind, do you, if I join the party?"

Lane said, "Mind! We're tickled to death to have you." And he really meant it.

SO SET the *Liberty* forth upon the second leg of its quest. Nor was it now a halting leg upon which they limped. For their bins were filled to the brim, "With enough fuel — " as Flick Muldoon put it—"to drive us from here to Hades and back, with layovers at Erewhon and Shangri-la!"

This phase of the journey was not so frenzied as had been the brief shuttle

from Earth to Venus. For Mars lay not in conjunction with Earth, but in opposition to the green planet. Their course bore them sunward from Venus, inside the orbit of Mercury, then outward again two hundred million miles to where slow Mars, pursuing its inexorable course, should meet them in celestial rendezvous.

Thus the first week of their twenty day voyage was a far from pleasant experience. Nearing Venus they had experienced a sample of Sol's heat-dealing abilities. Now, as they flashed yet farther sunward, Gary Lane and his companions realized that this had been indeed but a tiny taste of what was to come.

Hour by hour the temperature within the *Liberty* rose as flaming radiation lashed at the cruiser's hull with scourges of flame. It scarcely mattered that the refrigerating unit strained and labored like a floundering Titan. The metal walls were unbearable to touch, and cool drinks were but a sop to bodies which oozed perspiration from every pore like desert-parched sponges.

Nor did it matter that the air conditioning system functioned perfectly. Its vents and fans had no cool air with which to bathe their bodies. From its spouts gushed blasts of withering heat, scarcely less endurable than the thickly stagnant air of unventilated corridors. One by one the travelers shed layers of useless clothing. At their point of nearest proximity to Sol, the men on duty labored in sweat-soaked shorts, while those off duty—and Nora Powell—for modesty's sake sought the sanctuary of stripped relaxation in their private quarters.

TO GARY LANE'S unspacetrained eye it appeared that save for this raw discomfort the period passed without incident. Once, to be true, there was a time when it seemed they would never swing out, past, and away from the sky-filling crimson globe which is Earth's sun. And once there came a breathless moment when it seemed the *Liberty* choked and throbbed in midflight, shuddered violently . . . then ploughed along her course.

But he was not spaceman enough to read meaning into these episodes. It was not until much later, when they had recrossed the Mercurial orbit and already the scorching heat was a fading memory, that Captain Hugh Warren told him how near they had come to disaster.

"Nip and tuck there for a while," he confessed, "just as we reached perigee. Even at our rate of speed I didn't think we were going to make it for a minute. And we might not have, either, if it hadn't been for O'Day."

"What are you talking about?" demanded Lane.

Warren grinned. "Heard of sunbaths, haven't you? Well, all of us nearly took one. Only not in the sun's rays, but in old Sol itself. Remember that time day before yesterday when the ship stalled for a minute, then trembled and went on?"

"Yes. I thought something had gone wrong with the motors."

"It did," grunted Warren. "Solar rays locked 'em. Hysteresis, you know. If O'Day hadn't jumped to those controls and done something—God knows what—Sol's gravitation might have pulled us in and then . . . blooie!

"I'm telling you, I'm glad he's along on this trip. Frankly, I don't know whether I could have pulled us out of it myself."

Gary said, "And *I'm* glad I didn't know about it until it was all over! It *is* all over? We're in good shape now?"

"Yes. Though I'm afraid the jets

may be a bit warped from the beating they took. Not enough to cause us any trouble, I guess, but we'll have to have them fixed up when we get to Mars."

"And that should be—?"

"Oh, at least another ten days. Might as well relax and enjoy yourself. Speaking of which—" Warren's tone altered suddenly—"there's something I'd like to mention. I hardly know how to say it, but—"

Gary stared at him puzzledly. "Well, go ahead."

"It's about Nora . . . Miss Powell. I mean—I never quite understood the setup between you two. I don't want to poach on a friend's preserves, but in this instance—"

Gary said slowly, "Why—I have no strings on Nora, if that's what you mean, Hugh. We're friends, but—"

"But there's no understanding between you?"

"No."

Warren laughed relievedly. "Well, in that case, you wouldn't have any objection if I—well, sort of showed her around a little? Maybe pointing out, meanwhile, that a certain Hugh Warren isn't a bad sort of guy?"

"No," said Gary even more slowly. "No, of course not, Hugh. You have every right in the world to do so."

It was all very open and above board. Nora was a fine girl and Gary admired her greatly. Hugh was a great guy and an old friend. In view of these facts, it is strange that when Warren, that night after dinner, took Nora's arm in his and wandered off with her to the observation deck of the *Liberty*, young Dr. Lane should have found himself suddenly seized with a restlessness and impatience quite outside the usual emotional experience of an earnest scientist with a burning mission before him . . .

SO THE long hours rolled by, becoming days, and the slow days passed until at length the sun lay far behind them, a dwindling ochre glow in the black of space. And before them, increasingly larger with each hour of flight, lay a huge crimson sphere, scored with a multitude of crisscross scars, about which endlessly circled a pair of hurtling satellites. The planet Mars.

Toward that they flashed at constant driving speed, filled with a gathering impatience now that the second stage of their quest was so near completion. Only three men seemed in any way perturbed by the approaching nearness of the red planet. They, significantly enough, were the three trained spacemen upon whom evolved the duty of guiding the *Liberty* from orb to orb.

Flick Muldoon who, mechanically inclined, had shown intense interest in the technique of spaceflight throughout the journey, was surprised, on that day when finally their destination loomed directly before them, to note a growing apprehension in the eyes and actions of the three astrogators.

O'Day was in the pilot's seat, his fingers poised and ready above the innumerable banked studs. Of him Flick asked, "What's up, Lark? You're as fidgety as a yogi on a cactus mattress."

O'Day dismissed the query with a swift, impatient shake of the head. "Not now, Flick, if you don't mind. I'm busy."

Muldoon transferred his questioning to Warren.

"Busy? What's all the fuss about? All we've got to do is slide into Mars and make a landing, isn't it?"

But Warren, too, showed no inclination to talk. He said to the man at the controls, "Coordinates look good, O'Day. Both moons are on this side.

Of course, that may or may not mean anything. You never can tell."

"What *is* this?" demanded the now completely baffled Muldoon of the only remaining space officer. "You guys act like you're expecting trouble. What's the matter? Do you think the Martians are hostile?"

Lieutenant MacDonald smiled thinly. "It's not the Martians we're worried about, Flick. It's those damned moons."

"What about them?"

"Well, we want to make sure we clear them, that's all. You see, Mars has two moons, Deimos and Phobos. They're tricky little gadgets to calculate when you're plotting a landing on the mother planet. Both of them travel like bats out of hell. The inner one, Phobos, takes only seven hours and thirty-nine minutes to make a complete revolution. Deimos scoots along even faster. Though it's three times as far from its primary as Phobos, it gallops through its orbit in thirty hours and twenty minutes."

"So," Muldoon said, "What? You're not afraid of one of them hitting us, are you? We're traveling faster than they are. And if you know where they're going to be at any given moment—"

"No, we don't expect one of them to hit us. The thing we have to guard against is *our* hitting one of *them*. You see, those satellites have peculiarities. One of them is that every once in a while, for no known reason, they suddenly cease being tiny balls of inert matter hurtling about their primary, and for a brief period become tremendously potent magnets.

"Technicians have been studying the problem for a long time, but so far haven't discovered the solution. All we know is that the oddity exists. And so long as it does, Deimos and Phobos remain a constant hazard to spacecraft approaching Mars."

"Magnets?" said Muldoon. "You mean they exert force on us? Drag us down to them like—"

"Like," interrupted Captain Warren with a sudden bellow of dismay, *"this! Lark, throw clear!"*

FOR in the split of a second a change had marred the smooth, even flight of the *Liberty*. There came upon Muldoon a swift and sickening sensation of increased weight. Despite himself he lurched and tumbled forward to his knees aware that the ship's nose had spun dizzily off course, and that the cruiser itself was streaking at increased speed in a direction unplotted by the pilot.

Then everything happened at once. Great beads of perspiration springing from his brow, Lark O'Day began pounding his controls like a master organist playing the keyboard of a delicate instrument. Captain Warren leaped to the audiphone, barked sharp commands to the men in the engine room below. And over the intercommunicating system MacDonald was crying hurried instructions to crew and passengers alike.

"Go to emergency quarters immediately! Hammock yourselves for crash landing!"

"Crash landing!" gasped Muldoon.

"Here!" Warren grasped his arm, threw him into one of the well-padded percussion chairs of the control turret. "Lock your safety belt and relax. Everything's going to be all right . . . I hope."

He turned questioning eyes to Lark O'Day. The one time privateer took time from his labors for an encouraging grunt.

"I think so. We're hooked, but I think I can bounce her down on a slant.

Hold tight, everybody."

Then in the vision lens which mapped that segment of space immediately before them, Flick Muldoon glimpsed the rapidly swelling globe which was Deimos, lesser moon of Mars. Like a great, gaunt blood-red rock it looked; quartering, then halving, then completely blotting out the vision plate.

Muldoon was momentarily aware of razor-sharp cliffs, high rocky plateaus, and jagged tors unsoftened by a blade of vegetation. Then the motors whined in shrill and screaming protest. The *Liberty's* nose came up, and the ship struck with a resounding crash. Struck . . . bounced . . . shook itself angrily . . . and ground to a grating stop. . . .

CHAPTER VIII

Power from Mars

"WELL!" said Flick Muldoon. "Everything happens to us!"

Lark O'Day pushed a final stud which silenced the *Liberty's* motors. The ship lay still upon the satellite's rocky surface.

"That," said the pilot moodily, "is that! You all right, fellows? How about you, Muldoon?"

Flick eased himself from his chair, flexed arms and legs gingerly. "They *seem* to be all right," he admitted cautiously. "I'll study them for defects when the goose pimples go down."

Mac was already at the intercommunicating system, rasping queries to the far chambers of the ship. "Everybody OQ? No casualties?"

The responses were encouraging if somewhat blasphemous. Typical was the reply from Slops, the ship's chef. He snarled irately, *"I'm* all right, Lootenant, but did you say we was to have soup for dinner?"

"Eh? Why, yes. But—"

" 'Cause if you did, everybody better come on up to the galley right now with spoons. Dinner's slip-sloppin' all over the floor."

There came the sound of footsteps on the ramp. The door burst open, admitting that quartet which Lark O'Day had humorously dubbed "the brains of this here outfit." All were excited. Gary Lane demanded intently, "Hugh . . . Lark . . . What is it? Where are we? We're not on Mars?"

Warren shook his head. "No. We are about twelve thousand miles short of our goal. This is what you might call 'time out by command performance.' We're grav-locked. Have you tried to make her respond, Lark?"

O'Day had again been jiggling the activating studs. Now he said, "Yeah, but it's no go. Just our luck. We've blundered into one of Deimos' unpredictable magnetic periods. We're frozen tighter than a pollywog in a Plutonian puddle."

"How long," demanded Muldoon, "does this here magnetic grab operate?"

Dr. Bryant answered for the navigators.

"That, Muldoon, is as unpredictable as the phenomenon itself. Sometimes these periods last but a few hours; at other times they are sustained for months. I'm afraid we must just resign ourselves to remaining here as long as need be."

"Which being the case," drawled Lark O'Day, rising and stretching nonchalantly, "I might as well take a stroll outside and make sure we didn't split any seams when we pancaked. Come along, Hugh?"

He lifted down a brace of fabricoid bulgers from their racks on the con-

trol room wall. But before he and the skipper had time to don the airtight suits, there came an interruption not so alarming as unexpected. From the starboard airlock athwart the ship came the rasp of an entrance buzzer, then the wheeze of escaping air as someone or something outside employed the opening apparatus.

For a moment the companions stared at each other in bewilderment, then, as one, they turned and dashed toward the portal.

They arrived just as the inner door of the lock opened, admitting two bulger-clad figures. The taller of these stepped forward with hands outstretched in gesture of peaceful intent, and a quiet, pleasant voice said, "Greeting, friends. We bid you welcome to our tiny refuge."

Then the bulger helm was thrown back, and they were gazing upon the slant-eyed, ivory-skinned countenance of a native Martian.

NOW again the ex-pirate, Lark O'Day, proved himself a valuable adjunct to the party. He moved to confront the newcomers, conducting the amenities of greeting as only one with a knowledge of Martian custom and tradition could.

"Welcome, O brother of the ancient world," he said politely. "Your presence is like water to a sun-parched tongue. We are honored by your visit."

Never a word of surprise or astonishment. Never a query as to whence came the two interlopers. And though the old Martian's impassive face moved not a muscle, it was apparent he was pleased to find amongst this group one who respected the formalities of his people.

He bowed in turn, and with a politeness surpassing that of O'Day breathed, "You are most kind. The mongrel barks unbidden at the courteous man's gate."

"The bright sun also rises without warning," answered O'Day gallantly, "kindling fresh life in flagging souls. Will your lordship deign to brighten our humble vessel with his presence?"

The Martian bowed, and without further word he and his companion followed the others to the recreation room.

There, when all were settled comfortably, the visitor reopened the conversation. To the relief of all the Earthmen he did so in a manner at once pleasant and abrupt.

"I am charmed, Captain—" It was to O'Day he spoke, for the pirate chieftain, like Warren, affected the insignia of a space captain—"by your acceptance and usage of our Martian rites of greeting. But proud as I am of our ancient customs I must confess that when urgency presses, our formalities consume too much time. Let us, therefore, speak in the manner of your people, and—as you Earthmen so aptly put it—'get down to business.'

"You know, of course, you have landed on the planetoid Chou-shen, that which Earthmen call Deimos. I trust your craft was not damaged in the landing?"

O'Day said, "I think not, sir. We were about to investigate when you arrived. But I think I brought the *Liberty* down without any trouble."

"That is good. And now, if you please, just what is your purpose in approaching Mars?"

Lark said dubiously, "Well, sir, that's quite a long story. I'd like my friend here to explain it. He knows the facts better than I. Meanwhile, perhaps your companion—" He nodded to the second and somewhat slighter Martian who so far had not

removed his helmet—"might make himself more comfortable—?"

The old Martian permitted himself a faint smile. He murmured, "Though your ship is on Martian soil, it is a part of Earth. And it is written, 'The wise traveler eats of native bread.' So I suppose it will do no harm—"

He turned and spoke swift, rippling sentences to his associate. After a moment's hesitation, the other vested himself of his headpiece. . . .

Himself?

IT was no male Martian who stood shyly smiling at the assembled Earthmen, but a girl. Her long, almond-shaped eyes were sloe-black and lustrous, modestly concealed beneath lowered lids which rested like velvet fringes upon soft cheeks of palest amber sheen. Her hair was black and glossy, gathered up from a shapely neck and piled high upon her head in an elaborate but striking coiffure.

Looking at her, Gary Lane was stricken with admiration for the gentle charm and beauty of Martian women. She was, he thought swiftly, the most beautiful creature he had ever seen -well, the *second* most beautiful, anyway. His betraying eyes sought reassurance with a glance at Nora Powell, and when his gaze met hers he colored faintly.

Flick Muldoon, a dependable barometer of feminine pulchritude, gulped audibly and might have whistled his admiration had not Hugh Warren, jabbing him severely in the ribs, jolted the pucker from his lips. But it was upon Lark O'Day whom the sight of the girl had its most devastating effect. The handsome corsair's eyes widened in frank admiration; a spark lighted within their moss-brown depths, and his lips parted.

Young Dr. Lane began his tale.

"Well, you see, sir—"

The Martian said, "My name is Kang Tsao. And this is my daughter. Pen-N'hi."

The Earthmen introduced themselves swiftly. Then again Gary embarked on the telling of his oft-told tale.

Here in this quiet room, on one of the solar system's tiniest satellites, he found his most attentive audience. The old Martian listened gravely, attentively. When he had finished, Kang Tsao said, "I find this a strange, but not incredible narrative, Dr. Lane. You mentioned proof; mathematical computations. Might I see those proofs?"

And when some time later, he lifted his eyes from the perusal of the other world scientist's calculations . . .

"There is no doubt," he said, "but that everything you have said is completely and horribly true. One question, however, you have left unanswered. Why did you come to Mars?"

"Because," answered Gary frankly, "there is something we need from your planet. We know, or believe, that the authors of this disaster threatening Earth dwell not in our solar system but beyond it. There is no spacecraft known to men capable of carrying us outside our own little solar galaxy. But if all human intelligence, the wit and wisdom of every planet, could be brought to contribute its portion, such a spacecraft could be built. It was our hope to gain the four requisite elements from the four major planets. The secret of the hypatomic drive from Earth; fuel from Venus; from Jupiter the secret of faster-than-light travel—"

"And from Mars?"

"From Mars," said Gary slowly, "a vital gift. Your most cherished defensive military secret . . . the power shield. Yes, we know you have it, sir.

We know it because—I am ashamed to say—you have been forced on several occasions to employ it against Earth's space-vessels.

"Your science has discovered some form of force field which is impregnable against the onslaught of every known weapon. Our heaviest HE shells, our heat beams, needle rays, and rotor-blasts alike are harmlessly diverted by the magnificent barrier your people have invented.

"With such a shield must the *Liberty* be equipped if she is to dare a long and arduous trip through space to a hostile bourne. Not only is the entire journey made in peril of collision with rogue asteroids, bits of cosmic debris, and the like . . . but when we reach our destination we will need protection against any conceivable weapon our enemy may bring against us.

"Therefore, that for which we ask is a vital prerequisite to the safety and success of our journey."

DR. KANG pondered briefly. Then, at length, "It is true," he admitted, "we possess a force-shield such as you have mentioned. But you have made one error. It is not altogether the defensive weapon you imagine it. It is, indeed, the reason your craft lies now on Deimos."

"What?" interjected Hugh Warren. "You mean the intensified magnetization—"

"Exactly, Captain. That is my reason for dwelling here on this outpost, twelve thousand miles from my beloved homeland. We of Mars have installed here a tremendous power plant capable of projecting its magnetic beam upon any vessel which approaches our planet. There is another similar station on Phobos. Master scientists control each of these laboratories. When spacecraft which we have reason to believe may have hostile intent approach Mars, switches are thrown converting these satellites into gigantic magnets of tremendous power.

"That is why—" He smiled a bit ruefully—"That is why, on several occasions, Earth ships have crashed on Deimos and Phobos. Because it was clear they planned to disturb the quietude of our community."

"But," cried Flick Muldoon, "how about us? *We* didn't come here with a chip on our shoulders. *Our* purpose was peaceful enough."

Dr. Kang said softly, "This I know, my friend, *now*. But you must admit that appearances were against you. You came foreheralded by bulletins of treachery and theft on Earth, of strong-armed compulsion and allegiance with a privateer on Venus. We did not know what you wanted, but—" The old Martian shrugged—"we thought it best to deter your arrival until you could be questioned."

O'Day, whom it was hard to believe had heard a single word of the conversation, so raptly had his attention been riveted upon the ivory-skinned scientist's daughter, said abruptly, "And now that you know, Dr. Kang, what is your decision?"

Kang's long dark eyes seemed to withdraw within the curiously involute epithelial folds of their lids. For a long moment he considered the question. Silent he sat, and as impassive as a carven Buddha of the Earth race whose members he so strongly resembled. Then he said, "There can be but one answer, my friend. And on a matter such as this I am free to speak not only for myself but for all my people. You shall have that for which you came."

"We may, Doctor?" cried Gary Lane.

"No kidding?" yelled Muldoon.

"*Say*—!" breathed Captain Warren.

The old man halted their expressions of gratitude with a turn of the hand.

"Yes, you shall have what you need. We of Mars are a peaceloving race. That which you have chosen to call a 'military weapon' we employ simply and solely as a defensive measure against aggression. But now it seems the time has come to turn this weapon against an interloper of unguessed strength. Therefore, you shall have what you need. But there is one small stipulation—"

Lane thought grimly, *"This is it. The fly in the ointment. You never get something for nothing."* But aloud he asked politely, "And that is, Dr. Kang—?"

"Simply," replied the aged Martian, "that my daughter and I be permitted to install the equipment on the *Liberty* ourselves—"

"Why, of course!" said Gary.

"And," continued Dr. Kang, "that we further be permitted to join your party." And for the first time a flicker of expression crossed his features. A smile touched the corners of his lips. "You see, my friend, though we of Mars are called an impassive people, we are not entirely without curiosity. This quest upon which you are embarked has about it a breathtaking challenge which stirs me greatly. I am an old man, but I am not unlearned. It is possible that my knowledge may prove of some value—"

DR. BRYANT said, "Please, Dr. Kang! Not another word! We should be not only happy but *proud* to welcome you to our party."

Lark O'Day stirred restlessly. "But your daughter, Dr. Kang? It is a perilous trip. Scarcely the sort of adventure for a girl of gentle breeding."

"Where I go, there goes my daughter also. And I note that there is already one woman of refinement and gentle breeding among you. I think—" said Dr. Kang—"I think it is not utterly unreasonable to expect my daughter will find herself surrounded by champions more than willing to assure her comfort and happiness."

And this time it was a full smile he turned upon the suddenly embarrassed Lark O'Day. Gray Lane chuckled too. It appeared that the supposedly "impassive" Martian did not lack, among other things, a delightful sense of humor . . .

CHAPTER IX

Speed Limit—186,000 MPS!

THUS it was arranged. Dr. Kang Tsao and his daughter, beautiful Kang Pen-N'hi, moved kit and equipment aboard the *Liberty* that very day. The events of the following week were days not so filled with adventure as with plain hard and dogged work.

At Dr. Kang's own suggestion the *Liberty* did not linger on Deimos until the installation of the new power shield should be complete.

"This discovery," said the Martian scientist, "is remarkably simple. With what little equipment my daughter and I have brought aboard, and with such standard stores as may be found aboard your ship, we can make the craft impregnable. So let us waste no time, but get under way. We shall make the installation as we fly to Jupiter."

And this they did, in plain sight of all the *Liberty's* staff and crew. Despite which, few were able afterward to say what had been done, or why such minor alterations should make such a tremendous difference.

Old Douglas Sebold, Chief Engineer of the *Liberty,* openly acknowledged his inability to grasp the force field's

method of operation.

"Come down here to the engine room, they did; the Martian man and his daughter. Fidgeted and fiddled around for a couple of hours without speaking ary a word to any of us except maybe a polite, 'Howjyedo? G'bye!' And when they left, what had they did? Hooked up a little hunk of wire here and a condenser there and a thingamajigger somewhere else, none of which looks like it ought to do nothing!"

Lieutenant MacDonald made much the same plaint.

"They opened the control banks and threw a few shunts across the relays. Then they ran one cable to the hypos. But so far as *I* can see, what they did shouldn't make any great difference in the operation of the ship." He stared at Gary dubiously. "You don't think the old man's giving us the runaround, do you? Pretending to put out, when really all he's doing is stealing the secret of Earth's hypatomic?"

Lark O'Day, from the neighboring plot desk, looked up, glowering darkly. "Mac," he advised, "if I thought you really meant that, I'd come over there and push your face so far down your throat you'd have a tapeworm's view of your own stomach. Anybody who cracks about Dr. Kang—"

"Also cracks," grinned Gary, "about Kang's charming daughter, Pen-N'hi. Which Lark doesn't allow. But, no, Mac; I'm sure you're mistaken. As soon as we reach the asteroid belt Dr. Kang has promised us proof that the force shield has been installed and is in operation."

With this assurance everyone had to be content, until ten days out from Mars the *Liberty* hove within range of that tremendous swarm of shuttling bodies which comprises the Bog, spaceman's term for the belt of myriad asteroids ranging in size from tiny granules of rock to life-sustaining mountains of matter larger than many satellites.

IT WAS when they reached this point that Dr. Kang offered his promised proof. As the leaders of the party gathered within the *Liberty's* control turret he said, "And now, for those of you who have not had the opportunity of seeing the Martian force shield operate, a little demonstration may be heartening. Who's at the controls? O'Day? Good! Larkspur, my friend . . . you see that asteroid moving within our vision range to loft and starboard?"

O'Day, fingers flickering incessantly over the keyboard as the ship wove its way through the treacherous belt, nodded tightly.

"I see it," he grunted, "and I'm getting out of its way now. If that thing ever plowed into us, the *Liberty* would be one small blob of crumpled metal floating through space."

"On the contrary," said Dr. Kang smoothly, "you will make no attempt to avoid the planetoid. You will set a course directly for it."

"Directly—!" gulped Lark.

"Yes. If you will be so kind."

Then Dr. Kang stepped to the board and depressed the single black stud he had installed on the instrument panel. "Steer directly for that rock at the greatest speed you can achieve."

O'Day essayed a grin that didn't quite jell. But with the eyes of Pen-N'hi upon him, he had no intention of showing the white feather. He merely shrugged.

"You're calling signals," he muttered . . . and did as the old Martian directed.

With the die irrevocably cast, young Dr. Lane could sympathize completely with the *Liberty's* pilot. He, too, felt

qualms of misgiving as the cruiser bore down at flashing speed upon a chunk of rock large enough to shatter the ship into billions of tortured rivets.

Nor was it pleasant to stare into the viewpane, watching that lethal asteroid loom ever larger and more deadly, now like a gray, grim, gaunt and fearsome stony beast, its gaping canyons yawned like fangs bared to destroy them. Nearer and nearer flashed the *Liberty*. Lane's heart missed a beat . . . then another . . . then started pounding with an excitement which moistened the palms of his hands and dried his lips. He cast a nervous glance at Dr. Kang. But the aged Martian's features were expressionless.

Flick Muldoon was frankly apprehensive, and Nora Powell, standing next to Warren across the room, moved closer to the sturdy space captain as though to eke from his presence some breath of reassurance.

Nearer and yet nearer. And now they were almost upon the cosmic juggernaut. At the rate at which they were traveling, if something were not done *now*—immediately!—it would be but a matter of instants before—

Gary was not surprised to hear a cry rip from the group of awed watchers. Only a certain pride had prevented *him* from being the one to cry aloud. But it was little Dr. Anjers, cherubic face gray, who broke forth.

"O'Day, turn away! It's a failure! We're going to crash! Look out—!"

But in that moment came a sudden, shuddering twist. Not hard, not damaging, not shocking, but a sensation as though the *Liberty* had plowed headlong into a mass of sponge rubber. The nose of the ship flew up, the dreadful vision in the viewpane swung suddenly out of sight—and a moment later the rock which had threatened certain death to all aboard lay far behind!

Dr. Kang smiled. "You see, my friends?"

O'Day said wonderingly, "It—it shunted us! Bounced us up and around it, away from it, as if we were a rubber ball!"

"Exactly," said the Martian. "Our ship is encased in a sphere of electrical force through which no matter can penetrate. A yielding barrier which absorbs the shock of collision. The Bog holds no more perils for us, my friends. You may if you wish, lock your controls and pursue a set course to our destination."

"Well," said Flick Muldoon. "Well, I'll be damned!"

THE Bog lay a trifle more than 120,000,000 miles from Mars. Great Jupiter swung in its gigantic orbit a full 225,000,000 farther beyond. Thus a journey of more than three Earth weeks' duration lay before the space questers. Merchantmen were wont to speak of this as a dreary, tedious journey, but those aboard the *Liberty* did not find it so. They had much with which to occupy their every waking hour.

For one thing, as the final stage of their adventure beckoned closer, it seemed to definitely decide a problem up to now left dangling. That of determining into exactly which quadrant of space should they direct their flight when—and if—they were successful in gaining from the Jovian council the fourth of their needful loans.

"Proxima Centauri," said Dr. Boris Anjers. "That is, of course, the goal toward which we must set our course."

Gary said dubiously, "I'm not so sure. The studies of Millikin, and the later research of Marquart and Thompson Blaine would seem to indicate that cosmic rays emanate not from *that* sector of space, but rather from the neigh-

borhood of Sirius."*

"But," persisted the small Eurasian, "our main desire is to escape this galaxy. And certainly Proxima Centauri is our closet neighbor."

"Closest, yes. But by going toward *it* we travel in the opposite direction to that which I think we should go. No, Sirius is the star we must seek. There, if anywhere, lies the answer to our problem."

Flick Muldoon stared from one to the other of the two wrangling scientists, his honest face wreathed in bewilderment.

"Am I nuts?" he demanded, "or have you two gone completely off base? You're talking about Proxima Centauri and Sirius like they were weekend excursions. If I haven't forgotten everything my astronomy prof told me, Proxima Centauri is about four light years away. Sirius is twice that far. At the rate we're traveling it'll take us about 6,500 years to reach Proxy, and damn near 14,000 to get to the Dog! What do we do to live that long . . . eat vitamins?"

Lane smiled. "You'd better stick to photography, Flick. Don't you realize by now that our whole purpose in going to Jupiter is to learn the secret of faster-than-light travel? If they'll tell us this secret, we can reach our destination in—well, I don't know exactly how long. That will depend greatly upon how far we can exceed the so-called 'limiting velocity'."

Here Dr. Kang interpolated, "That my boy is the term I suggest you use with the greatest respect. It is not merely the 'so-called' limiting velocity. The speed of light *is* actually the greatest velocity at which matter can travel and still retain its integral form. Beyond that speed, mass becomes infinite. What happens then, no man knows. I am afraid we must reconcile ourselves to a long and wearisome voyage of nine Earth years."

Gary said tightly, "We can't *afford* nine years. I'm not thinking of our own discomfort, I'm remembering our computations. According to those figures, Sol's dwindling point will be reached not in years, but in months . . . maybe ***weeks!*** Before we can reach our goal, the universe from which we are fleeing will exist no more!"

"All the more reason," insisted Dr. Boris Anjers, "for heading toward Proxima Centauri, my young friend. I am older than you, and have studied cosmic radiation for a great many years. I *assure* you, there is no reason to believe one extra-galactic destination is more likely than another."

GARY glanced at the man oddly. It was unlike Anjers to flaunt his age and wisdom; equally unlike the small scientist to rouse to such heights of nervous excitement. Gary said slowly, "Well, Dr. Anjers, this is a communal enterprise. I don't wish to dictate our course. I'm willing to place the decision to a vote of all our party."

Dr. Bryant said quietly, "That will not be necessary, Gary. You have led us most successfully up till now. I think we are all willing to accept your judgment."

"You're darn tootin'!" said Muldoon.

And Dr. Kang said blandly, "I, too, have perfect confidence in your decisions, Dr. Lane."

Anjers' round face puffed with petu-

*Early investigators were unable to discern any one particular sector of space from which the mysterious cosmic rays seemed to emanate. The painstaking research of Larson T. Marquart (2034-92 A.D.) and Thompson Blaine (2041-99) subsequently determined, however, the point of heaviest emanation as being from that sector of space in which is found the Dog Star, Sirius (Canis Major).—*Ed.*

lance. His bushy eyebrows drew together. "Oh, very well!" he snapped in a tone almost a snarl. "But I warn you, you're making a great mistake!" And angrily he stomped from the room.

BUT to the man's credit, his pique did not last long. Before the day ended he had returned, as urbane as ever, with a contrite smile and an apology on his lips. So equanimity was restored aboard the *Liberty,* and that was good, for on a voyage such as this it was better to avoid all clash of personalities.

"We are fortunate," said Dr. Kang one night after Lark O'Day had reported an argument in the crew's quarters which had almost resulted in a free-for-all between the blasters and the mariners, "we number no Venusians or Jovians among our corps. It has been my observation that the members of these two races mingle poorly with the children of your world and mine. Of the four races, our two are the more easy-going, theirs the more emotional. Perhaps the early history of your Earth might have been less bloody had not your continent embraced such a diversity of planetary colonists."

Hugh Warren stared.

"Colonists? Are you trying to tell us, Dr. Kang, that the races of Earth's mankind aren't indigenous to Earth?"

The ivory-tinted one's eyebrows lifted slightly. "But of course they are not, Captain. Surely you didn't believe—or did you? But how unreasonable to think that one small planet would breed more than a single species! You of the white-skinned race are the only true race of Earth."

"We *are?*"

"Why, surely! Just as all the true children of Venus are dark-skinned, and we of Mars amber-fleshed. Oh, there is a certain fundamental rootstock common to us all, I suppose. But any medical man can assure you our differences lie not only in the color of our skins. Our races show many physiological variations. Blood plasma, hair structure, distribution of sinews, skeletal articulation—"

Nora Powell asked, "Then the yellow races of Earth—the Chinese, Eskimos, Amerindians — were originally natives of *your* planet?"

Dr. Kang nodded.

"Just as the ebony hued natives of your Africa came originally from Venus; yes. On my planet are small colonies of white and black skinned humans, and on Venus are aboriginal tribes of yellow and white skinned men. It seems an inexorable law of nature that on every globe the native tribe should rise to supremacy, while the secondary groups should achieve to a lesser culture."

Gary said, "That is only partly true, Dr. Kang. Your Martian colonists on our Earth—or at least those who colonized the country known as China—have ever been a great and cultured people. Our forefathers called them 'backward,' but that was because they placed social culture above mechanistic advancement."

"BUT, Dr. Kang," broke in Muldoon, "you're implying that spaceflight existed God - knows - how - long - ago! Centuries . . . eons . . . before the launching of the Wentworth-Kroll experimental rocket in 1973!"*

*Muldoon here ignores the two much earlier experimental rockets which left Earth in 1942 . . . that of Dr. Frazier Wrenn from Arizona and that of Doktor Erich von Adlund from Berlin. (See Amazing Stories, Dec. 1939.) Since both these rocket flights came to disastrous end, the history of rocket travel really begins with the launching of the Wentworth-Kroll ship, *Primus,* in September, 1973.—*Ed.*

Dr. Kang nodded. "And that is true. Spaceflight *did* exist countless centuries ago. It was achieved and perfected by a race now vanished. A race which persists today only in vestigial form. You will meet some of its members a few weeks hence."

"The Jovians?" demanded Gary. "You mean the Jovians once had a great civilization and visited all the worlds? From 'way out there in their far orbit?"

"Not exactly. But from their *former* planet."

"Former—?"

"Yes. The one through whose shattered remnants we have but recently passed."

O'Day said dazedly, "The asteroid belt! That's right! Science *does* believe it once comprised a planet. It was destroyed mysteriously, some say by a gigantic tug of war waged between Jupiter and the sun; others say by internal explosion, millenia before civilization came to Earth. But—" His brows drew together thoughtfully —"but the Jovians are a *blue*-skinned race, Dr. Kang."

"Quite so," agreed Kang. "And as such they are bespoken in the legends of my people. And—if I am not mistaken—also in your ancient records.* We should pity them, my friends. They were once a great and valiant empire; now they are decadent. Those of them who escaped the holocaust which destroyed their former worlds have taken refuge on Jupiter, and there live quietly, concerning themselves no longer with matters of solar government.

"It is piteous," mourned the old man, "to see a once noble people brought so low. But that is, and ever has been, the history of man's strivings."

"Centuries," mused Gary Lane. "Thousands of years ago. I wonder—"

"Wonder what, my friend?"

"I wonder if their downfall has anything to do with the problem we're tackling now. But—" Gary shook himself, ridding his mind of the sudden, uneasy thought—"but of course that's nonsense! It couldn't possibly be . . ."

CHAPTER X

Death Sentence

SO TIME sped by. And outward, ever toward the fringes of Sol's empire, flashed the *Liberty* on her all-important mission. The sun which but a few short weeks ago had been a blazing furnace threatening fiery annihilation to the space venturers had now dwindled to the apparent size of a tiny, glowing pea, half lost in the black depths behind them. A small, feebly glistening body whose heat at this great distance was scarce sufficient to make its presence felt.

And as this great luminary shrunk, its offspring grew ever larger in the *Liberty's* vision plate. Now the fifth planet was a heaven-filling orb scant hours away. Already the cruiser had whisked through the orbit of Jupiter's nine satellites and now, on a course carefully set by Lark O'Day, Skipper Warren was preparing to drop the *Liberty* to Jupiter's surface.

Muldoon, standing beside the space patrolman as he fingered the studs, said wonderingly, "Boy, that's one big planet, ain't it? Only—" His brow furrowed—"there's one thing I don't understand. How far away from it are we?"

*Such records do exist in Earthly legends. In many parts of the world may be found folk-tales concerning "blue-skinned" gods who brought to this planet the benefits of civilization.—*Ed.*

"'Bout twenty thousand," answered Warren.

"Well, then, how come it hasn't gripped us yet? I should think a thing as big as that would have a grav-drag strong enough to clamp hold of us about three or four times this far away."

Warren chuckled. "Appearances are deceiving, Flick. Don't let the apparent size of Jupiter fool you."

"Huh? What do you mean?"

"Simply," explained the pilot, "that the true planet Jupiter is not much larger than Earth."

"What? But I can see for myself—"

"What you see is Jupiter's tremendous atmosphere belt. For some reason never satisfactorily explained, Jupiter's gaseous protective envelope is more than a thousand times deeper than that of any other planet. That's why Earth's astronomical instruments always show Jupiter's mass to be so tenuous; with a specific gravity, in fact, less than that of water. Jupiter is a gigantic cosmic fake; a huge bubble of semi-visious atmosphere in the heart of which is embedded only a tiny, normal-sized core of the more cohesive elements which go to make up a planet."

"Why, the big quack!" said Muldoon indignantly. Then another thought struck him. "But say, if that's the case it must be colder than Tophet on that planet? Those miles upon miles of cloudbank should completely blot out the sun."

O'Day nodded. "And so they do. But on the other hand, they completely blanket the cold of interstellar space. You'll find Jupiter a dark, murky planet, but one with a very pleasant and equitable climate. Well—" He nodded to Warren as the vision plate before them was suddenly befilmed with writhing tendrils of moisture-laden atmosphere—"we're diving into the cotton. From now on it's blind flight. Coordinates OQ?"

"OQ," said Warren briefly, and concentrated on the task of dropping the *Liberty* through unfathomable miles of enswaddling cloud to the tiny core within.

A SHORT time later his efforts gained their recompense. The gray veil thinned, then parted, and once again the *Liberty* was scudding through clear atmosphere, sunless and damply gray, but not unpleasant. Above the virgin surface of a planet not unlike jungle-strewn Venus, great rivers sprawled through chains of rolling hills. The brown soil was resplendent with wild, brilliantly multicolored foliage.

The rest was simple. Pangré, capital city, lay at the north polar extremity of Jupiter. They had but to follow their compass to reach it. So in a space of time measurable by minutes the *Liberty* had attained and hovered over the fourth of the great world capitals that they had visited on their flight.

A bustle of activity on the spaceport below greeted their arrival. They asked and were given clearance. Smoothly Hugh Warren dropped the whippet craft into the designated cradle. And as the hypatomics spluttered into silence, the spacefarers prepared to leave their ship.

A great throng was gathered at the rocketdrome. That was understandable, for of all the civilized planets, Jupiter was least visited by Earth's commercemen, and it was a rare occasion indeed which saw a sleek cruiser of the Space Patrol dropping jets on the faraway world.

That many of the assemblage were bearing arms was also evident to those

aboard the *Liberty*, but Gary Lane found no cause for alarm in this fact. It was only natural that since suspicion and a degree of animosity existed amongst the governments of all the planets the Jovians should come to meet their visitors prepared for any eventuality. On every planet so far his mission had been greeted with distrust. He did not expect it to be otherwise here. He only hoped that candor and a complete explanation of the crisis would here win him the last of those four needed secrets.

"Nevertheless," said Dr. Kang, "it is written: 'The wise man treads the unknown path with drawn sword'. It would be well for us to approach the Jovians as cautiously as they await our coming. Therefore, while you go out I shall remain within the ship, watching carefully. At the first sign of hostile movement I shall depress the force-shield button, surrounding you and the *Liberty*, with an impenetrable field. Good luck, my friends."

"And since," added Dr. Anjers, "it would not look well for the crew to remain aboard, if we are to give an appearance of frankness and amity, I shall go to the engine room and there keep the hypos running for immediate departure . . . if such should be necessary."

Thus it was arranged. And so, a few minutes later, young Dr. Lane headed a company numbering a score which clambered from the *Liberty's* airlock to the surface of the planet Jupiter.

THE space sailors and blasters, grateful for an opportunity to stretch their legs, came happily from the ship. But none, not even the skipper Hugh Warren himself, wore sidearms, so desirous was Gary of proving to the Jovians his good will. With calm assurance the venturers moved toward the azure-fleshed assembly awaiting them, taking care, however, not to step beyond that imaginary line which Dr. Kang had said was the limit of the force-shield protection.

Gary raised both arms aloft in the universal token of greeting.

"Peace, men of Jupiter!" he cried. "We come from Earth in friendship and goodwill on a mission of vital importance, and we beg an audience with your leaders."

He could not have dreamed what was to happen next. It happened too swiftly and too suddenly for any comprehension. The leader of the Jovians, a member (if one could judge by the elaborateness of his trappings) of the Supreme Council, flung high his arm in a sign which was anything but friendly. His voice rasped forth in strident command.

"It is they! The Earthling traitors who would steal the fruits of our knowledge and destroy our noble culture. Seize them and hold them fast!"

In that instant the waiting throng coalesced into an angry mob, and as one man surged violently forward to seize their earthly visitors!

THERE was but one thing for Gary Lane to do. He spun toward the ship, shouted, "The force-shield, Dr. Kang! Turn it on!"

Then, with a sigh of assurance that they were safe from their attackers, to his comrades he said mournfully, "Well, we might as well go back to the ship. They don't seem to believe us. Guess we'll have to talk to them by radio until we can make them understand—"

Then the shrill cry of Nora Powell brought his words to an abrupt end.

"The barrier, Gary! It's not working! Look! They're breaking through!"

And Gary whirled again to see. In truth, there was no invisible shield to stay the advance of the onrushing Jovians. Already the vanguard of the blue-skinned warriors was rushing down upon his band, and already the startled Earthmen were preparing to combat this unexpected threat.

They were, or had been, men of the Space Patrol. They had no intention of surrendering meekly to a force of an alien planet, no matter how outnumbered or outarmed.

The voice of Herby Hawkins cried in shrill dismay, "Why, the blue blighters! Wot scum! Let 'em 'ave it, boys!"

And though guns had been forbidden the landing party, other but still formidable weapons appeared miraculously in space-bronzed fists. Sheath knives and leaded knucks, a Martian *kuugla,* an Erosian *traal.* *

In vain, Lane cried swift warning, "No, lads! Don't fight! Let them take us if they must! Go peaceably!"

His words came too late. Already a Jovian had fallen beneath the thrust of a slashing blade. Another was gasping out his life in choking coils of the Martian *kuugla,* while b u b b l i n g screams of horror bespoke the whirling path of the cross-shaped Erosian weapon.

Then sheer weight of numbers overwhelmed the feeble defense. The Jovians smashed through the battling few, and their stronger weapons took harsh toll of those who had dared oppose them.

Gary saw two Earth mariners go down, Robinson and Mulasky, parched to cinders by the lethal flame of the universally employed needle-gun. He saw Bill Smikes, who had wielded the *traal,* literally torn to pieces by the vengeful hands of blue-skinned foemen. And another fell also; one innocent of any attack. Chief Engineer Sebold, whose only crime had been attempting to hurry his men to safety. A ray gun caught him, burning his legs out from under him as if they had been tinder. He toppled and fell forward, his grizzled old space-beaten face a mass of shock and incredulity.

With a cry Gary leaped to his side. But there was nothing to be done. The engineer was as good as dead . . . and knew it. He twisted his writhing form to look up. His lips muttered thickly, "The foreign doctor! The filthy, murdering beast! He sold us out!"

Then a whiteness drained his lips . . . and he was gone.

BUT with his passing ended—for the time being, at least—the slaughter. For now the Jovians had accomplished their end; had completely surrounded the Earth party, and held every member captive save those in the ship. Nor did *they* hold their freedom for long. At the Jovian leader's command a corps of warriors rushed the airlock. When they emerged a few minutes later they escorted with no gentleness Kang and Boris Anjers. Anjers' usually cherubic face was mottled with rage and scorn. As he was thrust into company with his com-

*"The *Kuugla* of the Martian outlanders is vaguely similar to the *bola* of Earth's Polynesian tribesmen, being a length of fine hemp weighted at one extremity with three barbed hooks. When thrown by an expert, the *kuugla* wraps itself about the body of its victim, the barbs sinking into his flesh while the rope coils itself about his body, stifling any movement. . . . The *traal* of the Eros guards is somewhat like the *boomerang* used by early Australian bushmen, except that it is shaped more like a swastika, each blade being honed to a razor edge. An accomplished *"traalul"* (or "traal-thrower") can decapitate an enemy at two hundred yards with this weapon . . . and make the *traal* return to his feet for another casting."—Excerpt from: *A Survey of Tribal Weapons,* Stellar Institute Press, 2208 A.D.—*Ed.*

rades he pointed a quivering finger at Kang and screamed, "The yellow devil! He never pressed the button! The shield was never activated!"

O'Day, who during the brief affray had made no attempt to fight, but had leaped to the protection of the two girls, now glanced up from the pale golden creature whose slim form his arm still encircled to meet the eyes of Dr. Kang questioningly.

"Never pressed—But, Dr. Kang, why not?"

No muscle moved on the aged Martian's features, but his eyes were dark pools of bewilderment. "There is something terribly wrong. I *did* depress the button. The force-shield should have worked. I—I do not understand!"

Then there was time for no more, for the Jovian commander was prodding them into motion, and his voice was unequivocably harsh.

"To the Hall with them, that they may be judged and sentenced for this vile treachery!"

THUS, not as free men freely seeking a gift of equals, but as already half-adjudged and half-condemned captives, were the space venturers transported to the Council Hall of Pangré.

Here sat in judgment upon them white robed and diademed beings of a race not now to be found on any of the inner planets. The azure-tinted people who, if Dr. Kang's explanation were true, had in eons past spread culture throughout the whole of the solar system.

The judging of the *Liberty's* equipage was a swift formality, speedily concluded. The Jovian council's handling of the case was a travesty on justice. It listened to the tale told by its fellow members, crisply abbreviated Gary Lane's attempt at explanation, and the half score Councillors conferred briefly amongst themselves.

Then one, their leader, turned to address the Earthmen. "It is enough! We have decided. By the powers invested in us, the Supreme Council of Ahura-Pangré, we do hereby determine and judge—"

"But," cried Gary Lane, "you haven't listened to our story . . . haven't heard our reasons for coming here . . ."

"That since in violation of every rule and precept of interplanetary law you, a group of criminal felons from a neighbor planet, have made landing without permission upon our world—"

"We couldn't do otherwise. We had to come here, learn your secret . . ."

"And did hereupon murderously set upon and slay certain of our citizens—"

"Us?" cried Flick Muldoon. "Us set upon and slayed? Listen, you blue-skinned baboon, we came here as friendly as fleas on a pup's tail. *Your* boys are the ones who started the fighting!"

"We do therefore," continued the Jovian Councillor sternly, "hereby condemn and sentence you—"

Gary drew a deep, regretful breath. Well, here it came. Imprisonment. A long wrangle of extraditionary rites . . . transportation back to Earth, there to stand trial before a jury of Earthmen . . . a dreary, tedious, legalistic process, wasting precious—oh, so precious—time! He twisted restlessly under the knowledge that while worlds dillydallied, disaster crept ever nearer. If he could only make these people understand—

Then his petulance died, appalled. For the Councillor was speaking again, and from his lips were falling words that in his wildest imaginings Gary had not dreamed to hear. Words

which not only wasted precious time but spelled forever an end to their vital mission. Dreadful words of doom.

"Do hereby condemn and sentence you," intoned the Chief Councillor stridently, "to . . . *immediate execution!*"

CHAPTER XI

Flight Through the Fourth

AS IN a dream, Gary Lane heard those solemn words fall from the lips of his Jovian judges. Execution! Immediate execution! This, then, was to be the end of their adventure; this their recompense for having fought single-handed to stay the doom which threatened the entire system of worlds circling the tiny star called Sol!

With what happened next, the dream became a nightmare. Blue-skinned stalwarts of the Jovian guard closed about him and his companions, prodded them toward a grim, arched opening which Gary intuitively knew must be the portal of their execution chamber.

He was conscious of Nora Powell weeping softly at his side, of Dr. Bryant muttering in mute and babbled protest, of the subtle strengthening of Lark O'Day's broad shoulders as the ex-pirate tensed himself, despite the overwhelming odds against them, to hurl one last and gallant defi at their murderers. And because there was now no other path, he sought O'Day's eye . . . in that glance grimly arraigning himself on the corsair's side for whatever desperate attempt O'Day should choose to lead.

Then, as the entire corps of Earthmen readied themselves to go out fighting rather than as sheep herded to the slaughter, there came a sudden interruption from an unexpected source.

Through an entrance at the rear of the Council Hall rushed a wildly excited figure, a Jovian bearing in his hand a scrap of paper. This he waved wildly above his head, crying as he hurried forward, "My Lords! My Lords and Councillors—*wait!* Stay the execution! A message from the planet Earth!"

The Chief Councillor frowned. "It is useless. We will entertain no bids for extradition. It is the law of our homeland these Earthmen have transgressed. They must pay the penalty."

"But," panted the messenger, "it is no plea for clemency, but something else . . . something more important. . . ."

All eyes were riveted on the curious tableau. O'Day's whisper grated softly in Gary's ear.

"OQ, Gary, now's the time. Their attention is divided. We'll never have a better chance."

But Lane grasped his companion's wrist tightly, hopefully.

"No, Lark, no! Not now. There's more here than meets the eye. Look —the Chief Councillor's face—"

And indeed, a sudden and striking change had overswept the countenance of the Jovian judge as he scanned the message thrust into his hand by the excited messenger. His brows drew together. He turned to his associates and growled, "But what is this? Have the men of Earth gone mad?

"This message says," he read aloud, "'*If* Liberty *and crew, including group of Earth scientists, arrive on your planet, in the name of all humanity offer them every possible assistance. Investigation proves their theories are absolutely correct. Sun is dwindling rapidly to dwarf-star stage. Planet Mercury tottering in its course; may plunge into Sun hourly. Entire solar system hovering on brink of dreadful disaster.*'"

"Thank God!"

The grateful cry ripped itself unbidden from Gary Lane's throat. His tightened nerves relaxed in a warmth of justification, and his eyes were bright with happiness.

"Thank God, they've seen the truth at last! Now, if it is only not too late!"

The Jovian councillor turned to him, puzzled.

"Too late, Earthman? Too late for what? What does this mean?"

AND so, at last, Lane was given an opportunity to explain that which he had not been permitted to tell before. He told the true and only reason for their journeying hither, and pointed out the vital importance of the *Liberty's* mission.

The Council heard him through. Before the earnestness of his eyes, the burning ardor of his voice, their doubts seemed to melt away. Save for one member of the court who grumbled dourly, "This is all very well, and a pretty tale, but to me it has the smell of a prefabricated plot. So you want our cherished secret, eh, Earthman? The secret of achieving speed greater than that of light?"

"I not only want it," said Gary earnestly, "but must have it. Time is growing perilously short."

"And how do we know that this message is not a trick of your Earth government to save your spying hides? We have no reason to trust Earth."

Lane bit his lip. There it was again, the old, oft-told story of Earth's greed and selfishness now working against the better interests of all the planets.

"No, maybe not," he acknowledged, "but—"

"But—" interrupted Flick Muldoon, always to be depended upon in an emergency for clear and logical reasoning—"All our talk ain't worth a tinker's dam. The proof lies in the sky above us. Tell your astronomers to turn their 'scopes on Mercury. What's happening there should prove or disprove that radiogram's honesty."

The Chief Councillor nodded judicially.

"The Earthman is right. The truth of falsity of this message is beyond Earth's power to dissemble. We shall see and judge for ourselves. You leaders of the Earth party, come with us. Your crew shall remain here." He addressed his own warriors. "Show them every comfort—but guard them well. For if this message turns out to be a hoax—"

He let his words dwindle into silence, but the silence was pregnant with meaning.

Thus it was that the members of the Jovian Supreme Council and the arbiters of the *Liberty's* course convened presently within Pangré's magnificent observatory. Here, awed, they saw proof of the great and learned culture which was Jupiter's. For not even upon Earth nor sage Mars had ever been erected an edifice so complete and so impressive as this.

The size of the reflecting telescope to which a hurriedly summoned Chief Astronomer led them was one to stagger the imagination. It was greater by half again than the monstrous tube constructed by Kang's people on the desert planet. So huge was it that a 200 inch 'scope, equal in size to the proud but primitive instrument used by Earthmen at Mount Palomar in the Twentieth Century, was here employed simply as a spotter for the larger telescope.

But that, Gary Lane knew, was as it must be, since Jupiter was so far removed from its primary. And that this instrument sighted by infra-red radia-

tion he also knew. In no other way could its vision pierce the murky pall of cloud banks enswaddling the planet.

ALL these were but vagrant thoughts flickering through his brain as the gigantic tube was brought to bear upon the desired image. And then, as all took seats before a huge reflecting screen upon which the enmirrored vision was projected, he gaped in wonderment to see the heart of their solar system brought so near that it seemed scarce more than a day's journey.

Gigantic was the sun, its space-filtered radiance a blinding sheen which covered almost half the screen before them. Large, too, and visible plainly to the naked eyes was the gleaming, innermost planet Mercury.

When first Gary looked, Mercury seemed and acted in all ways natural. But then . . .

A cry escaped his lips. Because, contrary to all sound common sense and experience, the glittering orb of Mercury could be actually seen to move! And that movement was not the steady, normal hurtling of a planet in steadfast course about its primary. Mercury was bobbing, weaving, twisting, shaking itself like a gigantic silver terrier tugging to break free of an invisible leash!

For breathless minutes the assemblage watched the staggering spectacle being enacted before them. Then the Jovian Supreme Councillor spoke, his voice sincere in apology.

"Gentlemen of Earth, forgive us. We have wronged you. We did not, could not, comprehend the magnitude—"

But his words were interrupted by a hoarse cry bursting simultaneously from the throats of Jovians and Earthmen alike.

"Look!"

And turning once more to the screen, all witnessed the dreadful climax . . . the end of the planet Mercury.

For how long a time it had been tugging at its cosmic bonds none knew, but suddenly a critical point of balance was reached. With a great, impulsive leap the tiny planet burst free of its solar gyves. Like a gleaming stone hurled from some gigantic catapult it flashed outward from its orbit, writhing, shimmering, shaking. Then its flight altered. For the space of a long-drawn, tremulous breath it seemed to hang motionless in the void, ungoverned by any gravitational force or power of natural law . . . then the immutable order of nature asserted itself.

The laws of Mass-and-Distance asserted their claim. Like a fluttering moth drawn irresistibly to a flame, the fleeing world fell backward into its luminary. Faster and faster it raced, now dropping plummetlike toward the blazing prominences of Sol. As it fell it was squeezed and hammered out of shape by the tremendous forces playing upon it. For a moment it looked like a lengthening sphere . . . then a teardrop . . . then the pear-shape split into an infinitude of crushed and shapeless fragments which streaked like falling pebbles into the beckoning heart of Sol.

For the briefest instant a faintly brighter flame seemed to flicker upon Sol's surface as the parent sun hungrily swallowed its infant. Then . . . that was all.

MULDOON turned away, shuddering. He said in a dull, dazed voice, "There—there were men on that planet. Posts, mines, laboratories . . ."

"Johnny Cosgrave," said Hugh Warren. "He would have finished his three years of foreign service next

month. He was going back to Earth to get married."

Gary said tightly, "What happened to Mercury will happen to *all* the planets if we are not successful. That or something equally horrible. As the sun dwindles, its weight per volume will increase; all the inner planets will be devoured as was Mercury.

"You —" He turned to the Jovian Councillor—"Your planet may not suffer that fate. You are too far away. But the sun's heat will fail, and when that happens cold will sweep down upon you . . . such devastating cold as cannot be imagined. If your orbit widens, you may whirl away from the sun and be lost in the never-ending depths of space."

The Councillor said gravely, "You need say no more, Earthman. I understand perfectly. We of Jupiter are sometimes hasty, but never fools. Say now, what do you need of us? How can we cooperate with you to stay this impending doom?"

"Speed," said Lane. "The knowledge of that which your race alone knows: the secret of achieving speed faster than that of light."

The Jovian nodded gravely. "You shall have it. The requisite apparatus shall be installed in your spaceship immediately. But you must help us. Tell us your destination, that we may calculate the coordinates, and bring you to your objective."

"We must go," said Gary, "to the galaxy of the star known as Sirius."

"Sirius! Outside our solar system?" The Councillor frowned. "That is difficult and perilous. There are dangers even to our method."

"We must risk them. As it is, we have no way of telling if we are going to the proper place. Nor, indeed, whether when we get there we will find ways to do that which we must.

"Tell me, what is the limiting velocity of this new method you have devised? How fast will we be able to travel?"

The Jovian smiled faintly. "Upon that score, Earthman, you need have no apprehension. You will reach your destination in plenty of time—if you reach there at all. Because, you see, there is *no* limiting velocity to our method."

"No limiting —?"

"None at all. Your translation from one spot to another will be practically instantaneous."

"Instantaneous!" cried Dr. Anjers. "But that is impossible. Only by warping space itself could an object be transferred instantaneously from one spot to another!"

"And that," acknowledged the Jovian, "is identically the principle upon which our secret is based. Our instruments do not enable an object to *move* at a speed greater than that of the limiting velocity of light. Such a thing is, by definition and natural law, quite impossible. No, the principle we employ is utterly different. The object itself does not move at all. It merely stands still . . . for a brief time cast into a state of infinite entropy . . ."

"And then—?" asked Dr. Bryant.

"Space warps itself about the object, unfolding to place it in an entirely new sector. Thus, you see, our speed-heightening device does not depend upon velocity at all, but on the unchangeable mechanics of Space and Time. It is, in brief, a method of flight through the Fourth Dimension!"

CHAPTER XII

Betrayed

THE worst enemies make the staunchest allies. That old truism

never proved itself more surely than to Gary Lane and his comrades in the ensuing days. Those same Jovians who, considering them enemies, had been swift to condemn them to death with but a travesty of trial now, allied to their cause, proved themselves most eager of aides.

While technicians hastened to equip the *Liberty* with that secret device which would enable the ship to project itself through quadri-dimensional space to the ulterior universe, other craftsmen labored diligently to refurbish the ship, check its armaments, and render it in all ways completely shipshape for the journey to follow.

Nor made the Jovians any effort to conceal that which was being done aboard the *Liberty*. They worked openly, their engineers offering painstaking explanations of the device's operation to those who cared to learn. And, of course this number was great. Almost all the *Liberty's* personnel was eager to learn the secret of that novel flight method which was to henceforth govern their ship. As the sublime simplicity of the plan revealed itself physicists and spacemen alike were awed.

"Not so much," said Captain Hugh Warren wonderingly, "at the method itself as at the fact that nobody ever thought of it before. Why, when you hear it explained it's like child's play!"

Dr. Bryant smiled thinly. "And is that not always true of great inventions? The wheel, the steam engine, the gasoline motor, the rocket drive—all these things seemed simple commonplaces to the civilzations which used them. But each was, to a former civilization which knew it not, a mystery at once profound and obscure. So it is with the Jovian fourth-dimensional drive.

"I venture to predict that in the future days—if, that is, we successfully accomplish our mission—it will become the standard method of space travel. Its advantages are obvious. Instantaneous transfer of objects from one spot to another . . . why, just think! Tomorrow's earthman may eat for breakfast fresh budberries plucked that morning from the marshes of Venus, covered with milk shipped short hours ago from a Martian dairy ranch!"

"All of which," said the little steward, Herby Hawkins apologetically, "sounds mighty good, guv'nor. And maybe this here now device is, like you say, child's play. But—beggin' your pardon, sir—I still don't get it. 'Ow can a ship get so fast from one plyce to another? Almost like it was in two plyces at the same time?"

"Why," explained Dr. Bryant professorially, "simply by contracting into contigual adjacency two *loci* of the continuum—"

"EXCUSE me a minute, Doctor," grinned Gary. "Maybe I can explain it in a way Hawkins will understand more easily. You see, Hawkins, it's like this. I draw two circles on this piece of paper —" He sketched rapidly —"Now, let us suppose you are a two-dimensional creature living in this universe, which we will call 'Flatland.' You are on *this* world and you wish to travel to *that* one. How would you go about it?"

"Naturally," said Hawkins, "this way." And he drew his finger laterally between the two "worlds." "A stryte line bein' the shortest distance between two points—"

"Of course," said Gary. "And being a Flatlander you would have neither knowledge nor comprehension of any swifter way of making a journey than

to traverse the broad width of the sheet. However, *three*-dimensional creatures l i k e ourselves c a n immediately see a still shorter and easier way of traveling from one sphere to the other. We would simply—" He picked up the sheet of paper and folded it so the two worlds lay adjacent — "*We* would simply create a two-dimensional space warp through the third dimension."

"Well, blimey!" said Hawkins.

"To complete the analogy," Gary went on, "that is what the Jovians have done . . . only working in *four* dimensions rather than three.

"Everyone knows magnetic matter warps space. Einstein proved that 'way back in the early days of the Twentieth Century. So the scientists of Jupiter have invented a machine which, setting up a highly magnetized flux field, warps three-dimensional space in the direction of the flight they wish to make. Their 'ends of the paper' fold together . . . and when the warping machine is again disengaged you are where you want to be. It's as easy as that."

"It's as easy as that—" Hawkins gulped and ran a finger under his uniform collar. "Yes, sir. Now that you point it out, it's all very clear, sir. Ridic'lously simple, if I might say so. So, completely comprehendin' the sitchyation, I'll be gettin' back to my work now, sir . . . if you don't mind." And he disappeared.

BUT if Gary Lane found it easy to explain the operation of the Jovian space warp, he found it not quite so easy to explain other facets of the blue-skinned race's psychology.

It was baffling, for instance, to find himself confronted with smiles when, fearful of mishap, he warned the Jovian technicians against tampering with Earth's jealously guarded hypatomic unit.

"You must be very careful. The hypos are protected with devices which will cause them to explode if tampered with."

The chief technician smiled pleasantly.

"Yes," he said, "they were, weren't they?"

"I'm sorry," apologized Gary, "but there's nothing I can do about it. What! *Were?* I don't understand. Do you mean—?"

"We've drawn the dragon's teeth. Yes, of course. We had to in order to install our own equipment."

"But how—?"

"Another useful trick," smiled the Jovian, "of fourth dimensional science. It was a simple matter to reach our instruments into sealed chambers and cut the wires connecting the explosive fuses."

That, young Dr. Lane could see clearly, was quite true. It would be no harder for mechanics working with quadri-dimensional tools to perform this observation than for a tri-dimensional bank robber to remove the contents of a Flatland safe.

But there was a corollary to this revelation. Gary said slowly, "Then . . . then that means you now understand the operation of the hypatomic motor."

The other nodded casually. "Why, yes. And most ingenious, too."

"What do you plan to do with your knowledge?"

"Why," said the Jovian frankly, "I think it would be a very good idea to expose it openly to the races of every solar planet. Earth has held its monopoly on spaceflight long enough. I think, don't you, it's almost time *all* the worlds were given the right to free and competitive commerce?"

Gary grinned, a warm admiration for this people suffusing him. And:

"I think," he agreed, "you are absolutely right."

ALL these were interludes. There were others, too: amusing, entertaining, beguiling. Because now, on the eve of what must assuredly be their last and most perilous journey, almost to a last man the argonauts of the *Liberty* were having a last fling at such pleasures as presented themselves.

And in truth, there was much to be done, many beauties to be seen on Jupiter.

For the entertainment of the Earthmen was planned an expedition to the Flaming Sea, that weird chemical phenomenon of cold light whose shimmering, r u d d y reflection, viewed by Earth's telescopes c e n t u r i e s ago through the filtering layers of Jupiter's foggy shroud, had caused Earth scientists to ponder on the nature of the "Red Spot."

On this trip almost all the *Liberty's* personnel embarked, gay and carefree as youngsters gone a-picnicking. Lark O'Day, arm linked through that of his now-constant companion, the shy and quiet Pen-N'hi, came bridgeward to urge Gary on the trip.

"Oh, come along, Lane!" he coaxed. "Come along and have some fun. A man can't work *all* the time."

Gary said with sincere regret, "I'm sorry, Lark, but I can't. I have to help the engineers complete their installation. And there are some final computations to be made yet—"

Nora Powell, who had been standing in the background pleaded almost wistfully, "But it would be *so* much fun, Gary. They say the Flaming Sea is one of the most beautiful sights in the galaxy. One of the seven wonders of the universe."

"I know it. But I'm up to my ears—"

The girl said almost hopefully, it seemed, "Then, maybe I'd better stay with you? Perhaps I can be of some assistance?"

But Gary shook his head. "No, you run along. Hugh, you look out for Nora. See that she has a good time."

Warren, grinning broadly, moved forward to link his arm in that of the girl. "Sure will, pal. The pleasure's all mine."

So, in the end, all the adventurers save two took the sightseeing trip. Those two were Gary Lane and the elderly Eurasian scientist, Dr. Anjers, who had courteously excused himself.

"When one reaches my age, my friends, one loses interest in romantic surroundings. No, I shall remain here to be of what assistance I can to Dr. Lane.

And of assistance he was. For it was he whose adroit questioning of the Jovian engineers finally brought clarity to a question whose answer had been often hinted but never answered. As the workmen put the finishing touches on the warping unit's installation he asked, "And just what, gentlemen, are the limitations of this device . . . the usage to which it may not safely be put? Your Councillor, Kushra, gave us to understand that there was a certain amount of peril inherent to its use."

THE chief technician f r o w n e d. "That is right. However, we have taken all safety factors into consideration. In reaching your destination, if the dials and verniers are not changed from the settings which we have established, you will not experience the slightest difficulty—"

"But just what," asked Gary, "is the nature of this danger?"

"Simply that through an improper setting of the dials you might end your journey in some place quite unlike that which was your destination. In other words, if this central vernier were twisted to the right by so much as one degree the *Liberty's* flight might end not, as intended, within the solar galaxy of the star Sirius . . . but within the burning heart of the star itself."

Gary frowned uneasily. "The only consolation to that thought is that if such a thing happened none of us would ever know anything about it."

"Quite true. The *Liberty* and all aboard would be instantaneously seared to a clinker by the inconceivable heat of a star thousands of times greater than our little sun."

"Why, then," asked Dr. Anjers, "employ control verniers at all? Why not simply set and lock the controls upon the desired objective?"

The Jovian smiled. "Have you forgotten, sir, that when your mission is ended you will wish to return home? Then the new course and trajectory must be calculated and the verniers reset. That is why it is necessary we install a complete unit and train you in its use."

The scientist said petulantly, "Despite all these precautions it is a foolhardy trip. It would be safer, to my way of thinking, to visit a nearer star . . . say Proxima Centauri . . . thereby diminishing the risk of over or undershooting our mark.

"Sometimes," he bridled, "I think this whole scheme is madness. It is ridiculous to think of us, tiny mites that we are, daring to attack the people of a universe so infinitely greater than ours that we will be as dust motes beneath their crushing heels!"

Gary stared at the little man curiously. "People greater than us, Dr. Anjers? Now, that's a peculiar thought. Whatever makes you say—"

Anjers wriggled in sudden defiant embarrassment. "It was not my idea, Dr. Lane, but your own. It was you who advanced the theory that our universe is dwindling. It follows as a natural corollary that any race existing *outside* our universe—"

Gary nodded. "Why, yes, I suppose you're right. But I'd never stopped to think of it in quite that way. A race of giants—"

But the little man's words had had an even more striking effect upon the

The Liberty's personnel embarked on an expedition to the Flaming Sea

Jovian engineer. He said excitedly, "A great race? A race of giants? That's strange. There is a legend among our people that once, countless centuries ago, our forefathers were mighty men who clashed in brutal conflict with a race of giants."

"Naturally," said Anjers curtly, "there would be such a fable. That legend occurs not only in the mythology of *your* race but in that of every civilized planet. Earth's theosophy speaks of Gog and Magog, the giants who lived before men * The Venusian folk tales sing of an ancient battle of Titans. The Martians tell of a day

*Gog and Magog: according to the old Erse records, these were the names of two races which waged a tremendous warfare ages ago . . . the conclusion of which conflict was "the loss of Magog and the banishment of Gog."—*Ed.*

when giants warred.

"Such myths are easily explained. They are simply barbaric nature-myths; explanations of the recurring solstice, the battle between the giants of summer heat and winter cold."

But the Jovian said somewhat haughtily. "*Ours* is no folk tale of a barbaric people, Doctor. Our race was old when yours still roamed the jungles of its native world. Our written history is based on fact, not fancy. And it is strange that you should speak now of a race of giants. . . ."

Gary Lane held his peace. Yet, he, too, was oddly troubled by this new and disturbing thought.

BUT all things end at last, even hours of impatient waiting. And it was shortly thereafter that the installation of the Jovian machine was completed. So, at last, their adventure appropriately feasted, their success prayerfully toasted, the *Liberty's* com plement prepared to set forth on the final leg of their journey.

All hands were aboard, all stations manned, and in the control turret stood those upon whose efforts depended not only the success of this mission but the very existence of the universe.

It was a great moment, one calculated to not only lift with pride the heart of the humblest person, but to instill humility into the heart of the most prideful. A strange silence fell over the little group, a silence finally broken by Hugh Warren.

"Well . . . all ready, Gary?"

Gary nodded. "Yes. You understand the operation of the Jovian machinery?"

"Yes, I press this first button . . . the green one . . . allow fifteen minutes for the motors to warm and the space warp to develop, then press the red button. Right?"

"Right," said Gary. He looked around at his friends, then bent his head in a swift, decisive nod. "Here we go, folks. High, low, jack and game!"

Warren's finger touched the green button.

Nothing happened.

That is, nothing *seemed* to happen. The *Liberty's* hypos were cut. There sounded through the ship not even that dim, familiar, whining undertone which was its usual accompaniment of generating speed. There was no sensation of flight, no hurtling shock of acceleration, no grip of suddenly intensified gravity. No intraspatial weightlessness. Nothing.

For a moment the wayfarers stared at each other with speculative eyes. Could it be the Jovian invention was, after all, a failure. Did they still lie in their cradle on Pangré spaceport.

As if to solve this question, Lark O'Day pressed the stud which opened the vision plate to the outer hull. And what appeared thereon finally dissolved all doubts. It was not *what* they saw but what they did *not* see which offered clinching evidence of the fourth dimensional drive's effectiveness.

Because it was no spaceport over which they looked, nor jet space spangled with the colorful burning of a myriad stars. Instead, there reflected on the vision plate before them a blank, gray, writhing *nothingness*. Just that. The soul of an emptiness beyond space and time, beyond color and form and life.

It was a vista terrible to look upon, awful to consider. Gary Lane drew a short uneven breath. "Well, take a good look, folks," he said. There it is. The world between the worlds. The universe between the universes. The unfathomable fourth dimension."

Then, amazingly, came a burst of giggling laughter from one of their party. From the mirth-contorted lips of their Eurasian scientist companion, Dr. Boris Anjers.

"Yes," babbled Anjers trumphantly, "look long and well, little fools, while yet you may. For when that mist passes your puny efforts will end in flaming oblivion. That all too brief gray pall is—your shroud of death!"

CHAPTER XIII

The War Between the Worlds

GARY LANE'S immediate reaction to these incredible words was a swift and regretful commiseration. The little man plainly did not know what he was saying. The rigors of the long and arduous trip had undermined his nerve. Now this final, most perilous adventure had completely disrupted his morale.

Lane said soothingly, "Easy, Doctor. It's not so bad as all that. It'll be all over in a few minutes. Here, sit down and rest—"

And he moved a few paces toward the rotund little savant. But Anjers, moving even more swiftly, evaded him. He darted back, a hand dipping into one capacious pocket of his jacket, and when that hand emerged it gripped the hilt of an ugly Haemholtz ray pistol. With this Anjers covered his stunned companions.

"Stand back, Lane! Another step and I'll—Aaah, that's better." There was no cherubic placidity on his features now. Nothing but pure, unadulterated malevolence. "No, my friends, I am not, as you think, unnerved or mad. I am in complete possession of my senses . . . and have been all along. Too much so to permit that you outcasts of Gog shall ever achieve your purpose—"

"Boris!" cried Dr. Bryant. "Whatever *is* the matter? Calm down man, for God's sake!"

"Gog?" spluttered Flick Muldoon. "What's he mean, Gog?"

And Gary Lane, remembering it was wise to humor the deranged, said in as calm a voice as he could muster, "Now, Dr. Anjers please! Be calm. Rest a while."

"Rest?" Anjers' voice broke almost hysterically. "Yes . . . rest. That is good. When the red button is pressed, we will *all* rest, eternally."

"What do you mean?" demanded Lark O'Day harshly.

"I mean it was an evil day for you, pirate, when you cast your lot with these too-ambitious thwarters of destiny. For this journey is, and has been since its beginning, doomed to failure. I, the *Kraedar* Borisu, Praeconsul of Magog, have seen to that!"

"Now it's *Magog!*" cried Muldoon. A minute ago it was Gog. What's all this double talk—Gog and Magog?"

Gog and Magog! The two names struck a familiar spark in Gary Lane's brain. The ancient legend of Earth, about which they had been talking only the other day. A folk tale of an elder age when giants walked the earth and strove mightily amongst themselves.

The dim beginnings of a horrible conception stirred within him, and he repeated the words. "Gog and Magog. Not two mythical persons, but two worlds. Two ancient worlds embattled."

ANJERS' half-mad laughter rang shrill in the tense control turret. "You surpass yourself, Dr. Lane. Sometimes your swift intuition amazes me. Yes, you have guessed the truth. A truth forgotten by man for countless centuries. There *are* two worlds

—two worlds which one time warred. The name of one is Magog. That is the planet whereon I was born, from which I came to Earth. The name of the other was Gog. It was the solar globe which one time circled your sun between Mars and Jupiter. Long ages ago our two great empires strove in bitter conflict. Long ages ago *your* time, that is. In the Greater Universe —the true universe—of which Magog is still a dominant part, time has passed more slowly. To our people it has been but a score of years since our great weapons crumbled Gog to destruction and hurled your entire solar system into the doom which now approaches its climax."

Nora Powell cried, "Then Gary's theory was right! The cosmic rays *are* a deliberate force being played upon our solar system to destroy it. And you—you—"

"I am one of a race pledged to the utter obliteration of your people," snarled Anjers. "Yes. Had you not been blind and trusting fools you should have realized this long since. I did my utmost to prevent this expedition. And even though through fortunate follies on your part my efforts came to naught, now at the end triumph shall be mine!"

Gary said dazedly, "Then—then the marauder in the laboratory, that *was* you! And the informer whose distorted revelations caused the World Council to reject our pleas—"

"And it was you," challenged Muldoon, "who stumbled and fell at the Space Patrol port, almost ruining our escape? You, too, who suggested we turn back when Venus refused us *neutrotrope—*"

"And it was also you," said Dr. Kang gravely, "who from the engine room tampered with the controls of the force shield on Jupiter, imperiling all our lives? You who insisted we should set our course toward Proxima Centauri rather than Sirius—"

Boris Anjers, or "Borisu", as he now designated himself, bowed mockingly. But his grip was still firm upon the butt of the Haemholtz pistol, and his eyes carefully guarded against sudden movement by his erstwhile comrades.

"Yes, my friends," he taunted. "It was I who did these things. Your belated recognition of my exploits is amusing . . . but not significant. For it was *also* I who, a short while ago, reset the verniers of the Jovian quadridimensional drive. In a few short moments I shall press the red key which unfolds the space warp. When that happens, success will finally crown my efforts. For in this room are gathered the half dozen Earthmen capable of staying your solar system's destruction. With your passing dies the last hope of saving your universe."

O'Day's eyes were narrowed slits. He rasped dryly, "Haven't you forgotten something else, Dr. Anjers. *You* are one of our party. When that red stud is depressed *you* will share our fate."

The Magogean traitor asked proudly, "Do you think, scavenger of the spaceways, *that* consideration would in any way alter my act? When I was assigned to espionage service in your universe, I knew and accepted the perils of my post. The death of one Magogean is a small price to pay for the complete and final destruction of your hated empire. And now—"

A SMILE of fanatic triumph touched his lips as he moved toward the banked studs. But Gary, staring beyond him, had been watching with a glimmer of hope the frantic gesturings of Captain Hugh Warren. While the

Magogean spy boasted, Warren had been inching toward the *Liberty's* intercommunicating audio system. He was now but a few feet from the diaphragm over which his voice could be borne to every nook and cranny of the ship. His eyes pled desperately with Gary to stall the small Magogean a while longer.

Gary answered with no sign but with action. He cried, "But Dr. Anjers—"

"The name, my foolish young Quixote, is not 'Anjers' but 'Borisu'. The second name I adopted to comply with your silly Earth tradition of two names for a single entity. It is an amusing joke. In our tongue the word 'anjers' means 'the fox'."

"Fox," growled Lark O'Day, "spelled r-a-t."

"But tell me, Borisu," persisted Gary, "if we are to die, there can be no harm in our knowing now . . . why do your people bear such fierce hatred for those of our universe?"

Borisu glowered darkly. "That is a story too long to tell in its entirety. But a portion I *will* tell you that you may die realizing the implacable enmity of all Magogeans.

"It is a story which goes back many years—as we measure time in the true universe. Many millenia of your brief solar time.

"In true space once existed side by side two universes. That of our mother sun, which you call Sirius, and that of your parent star—Sol. Life spawned on the planets of these two systems; human life evolved. Men similar to you and me grew in stature and wisdom, developed civilizations, cultures.

"All this was long ago. For ages untold each planet lived in ignorance of its neighbors. But some two hundred years ago—I measure chronology now in Universal Constant time, which is the only true measurement—that race of azure-tinted humans who peopled Sol's fifth planet—"

"The predecessors of the Jovians?"

"Yes, they. The Gogeans they called themselves, for the name of their world was Gog. Their science discovered, as has recently your Earthly science rediscovered, space travel. Their employment of this knowledge was a parallel to your own. They ventured, explored, expanded. They colonized, transporting their people to the other worlds of your sun. They set up outposts, carrying their superior culture to every habitable world. So potent was their rule, so all-embracing their lordship, that all the other planets' creatures they made slaves, shuttling them back and forth between the worlds as they had need of them."

DR. KANG interrupted, "Then my theory was right, at least in part? Space travel *is* responsible for the commingling of planetary types."

"Yes," nodded Borisu. "And had the Gogeans gone no farther than this, their worlds might still exist. Their people might still be a great people instead of the decadent sprinkling we met on Jupiter.

"But they were not content with draining the wealth of one solar system. No, they must venture afar. So Gogean space-vessels, a mighty armada of them, came to our neighboring system, there by weight of superior science wreaked havoc on our cities, slew our brave warriors and set themselves up as rulers not only of their system but of our own.

"But their tyranny was short-lived. Though our race had not solved the secret of spaceflight, still our scientists possessed a vast knowledge. They turned to the construction of a weapon which should overthrow the interlopers. You know the result, because you have

experienced it. Our scientists discovered an all-penetrating ray with the power of contracting the molecules of anything upon which it was turned. In brief, a 'dwindling' ray which projects what you Earthmen call gamma or cosmic rays.

"The hour for revolt was struck. Long was the warfare, and bloody. But ultimately our people were triumphant. And in judicial council, when victory had been won, it was decided that never again would Gog be granted an opportunity to threaten cosmic peace with its lust for power. And since the only way to cure a disease is by ruthlessly crushing out its roots, a gigantic cosmic ray gun was built. This was turned upon Gog—"

"And Gog," Dr. Bryant took up the tale, from the depths of his scientific wisdom supplying the details as accurately as if he had been eye witness, "dwindling, crumbled into ruins beneath the cannon's radiation. But your vengeance did not stop there. You continued to play the gun upon the whole of Sol's system. Now, not only one world but an entire universe had been contracted well-nigh to the breaking point. Shortly our parent star itself will become too densely packed to supply light, and then—"

"Then," proclaimed Borisu stridently, "our planet, called 'Magog' because it is 'the enemy of Gog', will reign triumphant throughout not only ours but through *every* universe."

Gary risked a swift glance at Warren. The skipper had not been idle. Moving a hair's breadth at a time he had finally gained the wall. Now a single motion of his hand would snap open the switch.

"But, Borisu," demanded Gary. "Are not your people satisfied? You have destroyed your real enemy. Must you take vengeance on the children of the other planets which never harmed you? On the descendants thousands of years removed of those with whom you once struggled?"

"That," said Borisu, "does not matter. Our vengeance will not be complete until the last despised Solarian is destroyed. Only then—*Stop!* I warned you—"

HIS ray pistol, whirling to bear upon Warren, spat viciously. Its flame cracked across the turret to blast at the spot where Hugh but a moment before had stood. But its lethal tongue barely licked Warren's uniform. With a blinding movement the captain had smashed open the audio key, bawled, *Engine room! Hypos on, quickly!*

Then no more, for a second flare of the pistol dropped him, choking, to the floor. Its searing blast kindled the serge of his uniform. Nora Powell screamed and impetuously lunged forward to beat at the burning cloth with bare hands. A familiar thin, high, whining shuddered through the ship, and from the engine room below came the voice of Bud Howard demanding, *"Why, Skipper? I thought you told us not to—"*

Then the Magogean *Kraedar* wheeled, his face livid. "Enough," he rasped. "It will do you no good, Miss Powell, to extinguish that little burning. In a moment it and you and *all* of us will merge in a mightier flame . . . Magog's blazing star!"

He laughed madly as his fist smashed down upon the crimson stud!

CHAPTER XIV

Escape

AS BORISU'S hand depressed the fateful button, a sort of sick pa-

ralysis seemed to fall upon almost everyone in the control turret. It was as though all realized that a moment hence in one brief, blinding flame would vanish all for which a lifetime of struggle had been spent. Joy and sorrow, happiness and care . . . hope, love, ambition . . . all these were to merge as one in the final erasing of life's futile slate.

Even Borisu, high-minded a patriot as he proclaimed himself to be, stood stricken by the irrevocable enormity of what he had done. Mad laughter froze on his lips, panic glazed his eyes, and the hand which held the the threatening Haemholtz faltered and dropped to his side.

And in that moment Warren roared, *"Now,* Gary! *Get him!"*

Gary dove across the room, his shoulders crashing the little man to the floor as his hands wrenched and tore the ray pistol from Borisu's grasp.

And the sudden death they had been led to expect?

Nothing happened.

No blinding flame engulfed them. No cascade of heat crushed the *Liberty* to a blob of molten metal. The gallant ship rode mightily, smoothly, evenly, the hum of its hypatomics a reassuring sound in their ears.

And now the tables were turned, for Muldoon and O'Day had leaped to Lane's assistance. Already Flick had snatched the skittering pistol from the floor, while Lark's strong arms encircled the raging Magogean, locking him in a vise. Meanwhile Warren, lurching to his feet, had charged to the controls, glanced swiftly at the vision plate, made a few swift corrections in their course. Now he turned, grinning.

"Made it," he cried relievedly. "I figured we might. Just in time, though. There's Sirius off the port bow. Too close for comfort."

"B-but," faltered Nora. "What did you do, Hugh? I thought we were headed for certain death? Even the Jovians warned us that if the controls were tampered with—"

"That's right," admitted Warren cheerfuly. "But the Jovians were thinking only of their *own* drive. They didn't take all the factors into consideration. *This* slimy rascal—" He jerked his head toward the impotently fuming Quisling locked in O'Day's arms—"reset the quadridimensional stops to plunge us into the heart of Sirius. And it would have worked, too, had that been our only means of propulsion.

"But it occurred to me that if we could get the hypos working, adding the *Liberty's* normal acceleration to the space-twisting speed of the Jovian drive, we might put enough distance between ourselves and Sirius to save our necks.

"And—" He shrugged—"it worked. That's all."

"Hugh," said Gary, "you're terrific."

"Me? No, just plain lucky. I was only playing a hunch. But I figured we had everything to gain and nothing to lose."

"He's a violet," snorted O'Day. "A modest, shrinking violet. Stop playing coy, skipper. That was one of the neatest bits of mental astrogation I've ever seen."

Warren said uncomfortably, "Comets to you, sailor. You could have done the same thing yourself."

"Sure. If I'd thought of it."

"Anyone who can handle a spaceship like you can—"

"In," acknowledged Lark O'Day, "my own back yard; our own little solar system. But when it comes to figuring intergalactic calculus with a quadridimensional drive as a factor—" He shook his head admiringly—"you're the boy for my money."

MULDOON'S fingers were itching on the butt of the Haemholtz. He glanced at the silent Borisu, then longingly at his weapon.

"When the Mutual Admiration Society adjourns," he said, "what are we going to do with our lethal little pal? You want I should take him out somewhere and play punchboard on him with this?"

Gary Lane said grimly, "Murder in cold blood isn't ordinarily my dish, but it seems to me that in *this* case it isn't so much a case of murder as it is fitting retribution. I'm in favor of—"

But Dr. Bryant said, "No, Gary. We can't do that."

"Why not? He's got it coming to him."

"I agree with you perfectly. But now that we have reached Sirius we may have need of him."

"Need of *him?*" exploded Muldoon.

"Yes. For one thing we already know the Magogean language is unlike any used in our universe. We will have need of an interpreter. Another thing you must remember is that so long as we hold him unharmed aboard the *Liberty* we hold as hostage one whom we know to be a person of importance among his own people."

Lark O'Day said bluntly, "I'm agin it. I was raised in a hard school, I know. But one thing I learned long ago was that the best way to get rid of an enemy is—get rid of him!"

And Dr. Kang, too, added quietly, "It is not wise to spare an enemy like this; one who has already attempted not once but many times to destroy us. It is written, 'Who dallies with the wasp will feel its sting.'"

Neither Muldoon nor Gary appeared to think highly of Dr. Bryant's clemency. But surprisingly it was the skipper who came to Dr. Bryant's support.

Warren said soberly, "What you say about Anjers'—Borisu's—treachery is quite true. Nevertheless, *we* have no right to pass judgment upon him. The thing to do is hold him in protective custody, take him back to Earth with us when we go, and there let him stand judgment before a properly constituted court. Law and order must be upheld."

O'Day laughed curtly. "There speaks the Space Patrolman. Once a cop, always a cop, eh, Warren?"

Warren flushed. "Maybe so. But that's the way I feel about it."

And the one-time pirate shrugged. "Okay, skipper. It's your ship. Save him it is. But—" He glared distastefully at the Magogean—"it's a good thing for you, buster, that we're aboard the *Liberty* and not the *Black Star* . . ."

SO BORISU was taken away and placed under lock and key in the *Liberty's* brig. And later the leaders of the expedition gathered once more in the control turret of the *Liberty* as Hugh Warren, with his instruments, struggled to set a true and proper course for the ship.

"It's baffling," he confessed ruefully after futile consultation with his azimuth chart and astrogation table. "I can't seem to orient myself at all. There are no constant bodies to set a course by. Or, rather, there are plenty of known bodies—but they don't *look* right. Nothing l o o k s right!"

"What do you mean?"

"Why, just that. Everything's cockeyed. Out of proportion. Here, see for yourself—"

Warren touched the stud which activated the vision plate. On the forelens screen was enmirrored that segment of space which lay before the *Liberty*.

As one, the company's eyes opened

wide at the curious picture which lay exposed to their views. Starstrewn heavens sprawled before them, yes; but no such spangled jet as might be seen from Earth or any of Earth's sister planets. There, stars were dim, small specks, faintly aglitter in unfathomable distance. Stars had diversity of size . . . this one was great, that other small. Stars clustered in recognizable patterns. Here a portion of the sky was filled with their tinsel sprinkling; elsewhere might be a patch of sparse-strewn midnight black. Thus the heavens as seen from Earth.

But not so was space as seen from *this* vantage point. For, viewing their surroundings through the vision plate, it seemed as if they swam through a sea of radiant light where every star was a beacon, each planet a steadfast buoy of glowing color. And in this gleaming pattern was a regularity, an orthodoxy as painstaking as if some master craftsman had allocated each glowing sphere with precise care.

Regularly discernible against the omnipresent back-drop of space were the solar galaxies, each a complete entity, aloof, removed from its fellows and confined to its own definite segment of space. Some galaxies were younger than others. One formed a whirlpool nebula. Another, giving birth to worlds, was a gleaming, egg-shaped blob of gold. Still elder universes had achieved secure and permanent balance.

But in certain things they were all alike. Each dominated its own sector of space without encroachment on a neighbor. And each parent star was very nearly equal in size to every other.

It was, in short, the mathematician's dream: the perfect achievement of theoretical stellar mechanics. A universe balanced in absolute statis, with each galaxy arranged in contrapuntal adjacence to each other.

"But this—" said Flick Muldoon wildly—"*this* can't be the Sirian system! This isn't any part of the universe we knew!"

Young Dr. Lane nodded soberly. "Yes, Frick, it is. This, at last, is the *true* universe. The real and constant universe we theorized might exist when first we took those photographs on Luna. We are looking, as no man has looked for countless years, upon the true 'bubble universe' of which our solar system was once a part."

"But—" asked Nora—"our solar system *now?*"

Warren had been twisting the vision lens. Now he halted its periscopic movement at a space sector behind the *Liberty*. "I think," he said dubiously, "*that* may be the universe from which we came. Gary—?"

GARY looked and nodded. Sharp against the dazzling brilliance of the true universe was a strange blot, a circular well, a cone-shaped funnel of blackness carven through the bright surroundings. And deep and far, where the end of this funnel faded into unfathomable distances, was a single, tiny, pin-prick of light glimmering faintly.

"Yes," he said, "that is—must be—it. That tiny star is Sol. The one diminishing unit in all the constant universe. And that funnel is the path of the cosmic rays, the cone through which Magog's ultra-wave cannon is beaming its lethal radiation upon our little system."

"Gad!" gritted Lark O'Day. "What a vengeance! What a punishment to mete on an innocent people! We must stop those scoundrels, Gary! If we only knew where to find them—"

"We do," Gary pointed out. "As Earth is the *far* end of the funnel, the

planet from which the rays *emanate* must be Magog."

"Right as rain," declared Hugh Warren. "And, Gary, I've got it spotted now. It's that second planet over there, the blue one. Hello, below there! Bud!" he shouted into the audio. "Accelerate the hypos to max. And tell the men to stand by for any emergency. We're approaching our destination."

"A.X. to max it is, sir!" came back the reply.

And the whining sound of the hypatomic motors heightened as the *Liberty*, its goal in sight, leaped through unworldly space like a bow-sped silver arrow.

IT WAS as they neared Magog that Gary Lane experienced a final qualm of misgiving. Dim memory stirred him. He recalled a remark the man they had known as Dr. Angers had made on Jupiter.

"It is ridiculous to think of us, tiny mites that we are, daring to attack the people of a universe so infinitely greater than ours that we will be as dust motes beneath their crushing heels," Borisu had said.

At that time he had still been pretending allegiance with his companions. Which did not alter the fact that there might be truth to his claim. The Earthmen, born of a contracted planet, might be a hundred, a thousand times smaller than the enemy whose homeland they were approaching. Appraising the size of Magog from this distance, Gary could not tell. Size is relative, and in this Great Outer Universe there was no commensurable object by which the spacefarers might judge their own stature.

But Dr. Kang disabused him of this thought the moment Gary ventured it.

"No, no my friend. You need entertain no fears on that account. Just as the Magogean, Borisu was similar in size to us on Earth, so on Magog will our height correspond to that of the natives."

"But if we come from a planet which has been dwindling for untold years—"

"That does not matter, my boy. You forget, we are now in the real or 'static' universe. Moreover we came here through a space warp, traveling with a speed which exceeds that of light. Elementary astrophysics will tell you that any object exceeding the speed of light attains infinite mass. Therefore we may safely assume that during our period of translation from the inner to the outer universe the *Liberty* and all of us aboard the ship expanded to a size comparable to this universe which now surrounds us."

"Expanded?" grunted Lark O'Day "But I don't feel any different."

"Naturally not. For you are as perfectly attuned to this greater universe as you were formerly to our own contracted solar system."

"But," demurred Gary, "Anjers—I mean Borisu—himself said -"

Dr. Kang smiled quietly. "Barisu made *several* paradoxical remarks. He also showed an appalling lack of comprehension of the hypatomic drive. Moreover, on several occasions he failed rather pitifully to accomplish a mission he had every opportunity of achieving.

"All of which leads me to believe, my friend, that -his boasting to the contrary — he's not so brilliant a genius as he believes himself. Nor is his race so scientifically advanced as he considers it. In at least several respects we have already discovered their knowledge to be inferior to ours. Let us hope we can maintain our superiority, and bring about the end we desire."

"By golly, that's right!" muttered Muldoon. "Borisu never struck *me* as being any master mind. And he *admitted* his race didn't know the secret of spaceflight."

"Excuse me," interrupted Dr. Kang. "At one time they did not. But they must know that secret now."

"Why?"

"How else could Dr. Boris Anjers have reached Earth to serve as an espionage agent for his people? We are forced to assume this Magogean surveillance of the solar system is a regular thing, with new appointees assuming their duties periodically. Borisu intimated he was but one of many. Obviously, therefore, the Magogeans have mastered not only spaceflight but faster-than-light travel. As well as the ability to diminish their own bodily size at will. At any rate, we shall know in a little while."

WARREN'S voice interrupted him. The skipper was seated at the controls. "You've got part of your answer now, Doc."

"What do you mean, Captain?"

"About spaceflight. The Magogeans *have* got ships. Because here comes a flock of them right now."

O'Day's eyes lighted. Restless for action, he had been chafing impatiently ever since they sighted Magog. Now his moment had come. He sprang to his feet.

"Man the guns! We'll teach those scoundrels—"

"Wait," advised Dr. Kang. "Not so swiftly. Let us try every peaceful means to win them over first. Dr. Bryant · where is Dr. Bryant?"

"Below," said Muldoon. "He went below a little while ago. I don't think the old man feels so good. He looked sort of funny. Kind of a sick expression around his mouth. And his eyes were glazed, like he was sort of dopey, or something."

"Well, let us send for him. We will need his advice. And bring Borisu from his cell, too. We must attempt to communicate with the Magogeans by radio. We will need Borisu to interpret for us."

Lieutenant MacDonald said, "Yes sir. Right away, sir," and hurried from the room.

Warren, closely scanning the vision plate, muttered, "Six . . . eight . . . a dozen of them. If they're friendly, all right. But if they're hostile—"

"You have turned on the force shield?" asked Dr. Kang.

"No, but I'll do it now." The skipper pushed the black button. "*That* should take care of any tricks they try to pull. Say—" His voice broke in a sudden exclamation of astonishment. "Say, *that's* funny! Where did *that* come from?"

"That? What?" demanded Gary.

"Why—why, it looked like a life skiff. Matter of fact it looked like one of the *Liberty's* auxiliary craft. It just scooted across the vision plate for a minute and then—I'll try to pick it up again."

Warren twisted the scanning device deftly, succeeded in centering it upon the foremost of the approaching Magogean spacecraft. He leaned forward, studying intently the scene revealed.

"By God, it *is* a life skiff! But what's it doing this far out in space? And where did it come from?"

He got his answer, but from an unexpected source. For suddenly the audio crackled into activity. The voice of Lieutenant MacDonald came to them from midships.

"Captain! Captain Warren!"

"Yes? Yes, what is it?"

"It --it's Professor Bryant, sir."

"Bryant? What about him?"

"He's lying in the brig . . . unconscious!"

"You mean—you mean Borisu attacked him? Seize the traitor! Bring him here immediately."

MacDonald's voice was anguished. "I can't, sir. That's what I'm trying to tell you. The cell door is open . . . one of our auxiliary craft has been stolen from its cradle . . . and Borisu *—has escaped!"*

CHAPTER XV

Life Everlasting

"THE life skiff!" thundered Hugh Warren. "That was Borisu. He's escaped to his own fleet!"

"And ruined," groaned Muldoon, "everything. Now they know who we are, where we came from, and what we want!"

MacDonald spoke again from below. "Dr. Bryant, sir—he's coming around. Shall I—?"

"Bring him up here," ordered Lane. "And for God's sake, hurry!"

The audio clicked off. Gary turned to his companions. "Whatever we're going to do, we've got to do fast. Now they've got wind of our scheme, we may *never* accomplish it. And if we don't—"

He let the sentence dangle. But all knew as well as he what must follow if their mission failed.

Minutes later, a dazed Dr. Bryant appeared in the turret, supported on the shoulder of the young space lieutenant. He shook his head in sorrowful reply to Gary's unspoken query.

"I—I don't know. I can't remember a thing. I was here in the turret with the rest of you. The next thing I knew MacDonald was breaking an ammonia tube under my nostrils. All that happened between is—blank."

"I told you he looked sick," said Muldoon. "He looked sort of dopey. Like he was drugged or—"

"Or," burst forth Gary Lane with a sudden comprehension, "hypnotized! Doctor, could that have been it?"

Bryant stared at the younger man confusedly.

"Why—why, I don't know, Gary. It is possible. I remember now that months ago, when Anjers first came to the observatory, one evening we discussed hypnotism at great length. He claimed some small faculty along that line. I laughed and told him it was impossible for a mesmerist to gain control over a strong minded person. Why—he experimented, with me as the subject. His efforts were a complete failure. Later he acknowledged as much, and we never broached the subject again."

"You didn't have to," grunted Lark O'Day. "That experiment wasn't the failure you thought it, Doctor. On the contrary, it must have been a complete success. At that time, with your cooperation, Borisu established a control over your brain. One which he has never relinquished."

"With my cooperation? But I concentrated upon rejecting his mental suggestions—"

"THAT," interrupted Dr. Kang gently, "is the explanation, my good friend. You erred in saying strong wills cannot be hypnotized. Research indicates that quite the opposite is true. It is *only* the strong-willed who make good hypnotic subjects. Never the dolts, morons, the weak of brain. For in order to accept hypnotic influence, one must be able to concentrate solely upon a single thought to the exclusion of all others. And only the highly intellectual have this power. I fear it is true you have

been an unwitting partner to Borisu."

"I *know* you have," cried Gary. "There has been one thing which bothered me all along. It was not satisfactorily explained after Borisu admitted he was the one who attacked Muldoon in the observatory. *You* alibied him at that time, Doctor. You said you and he were together in your office. Had it not been for this we should have discovered long ago who was the traitor in our midst."

"He," moaned the aged scientist, "must have compelled me to say that. And this time he forced me to come below, open his prison cell, and permit his escape. But what are we going to do?"

"It's not what we're going to do," fumed Flick, "but what we should have done. I *told* you we ought to have conked that—"

"Stow it, Flick," suggested Gary. "There's no use crying over spilt milk. Borisu's skipped. So we'll have to abandon that plan of approach. We must figure the next best thing."

"Skipper? Captain Warren?" Again the intercommunicating system was alive.

"It's Sparks," said Warren, "calling from the radio turret. Yes, Sparks? What is it?"

"A telaudio message coming in. Someone calling us by name."

"Borisu," snarled O'Day.

"Pipe it down here, Sparks," ordered the commander of the vessel. "Throw it over the IC so we can all hear it."

"Very good, sir!" There was a moment's hush, then an instant of metallic confusion. Then the incoming message was retransmitted from the radio room to the control turret. A voice was calling, *"Spaceship Liberty! Signalling the Liberty! Can you hear us?"*

Warren glanced at his friends significantly. "It *is* Borisu," he whispered. "I'd know that soapy, accented voice in a million." He pressed the activating control of the turret transmitter and answered, "Spaceship *Liberty* answering. Hugh Warren, commanding officer, speaking. Who are you? What do you want?"

Transmission cleared as the beam between the converging spacecraft strengthened. It was definitely Borisu's voice addressing them. All recognized and tensed with anger to hear the vindictive mockery in his tone.

"What, Captain? But certainly you're clever enough to know without being told. We not only *want* but *demand* the immediate surrender of your ship!"

O'DAY'S face turned brick red. His lean jowls mottled with rage. In stifled tones he choked, "Surrender! That slimy rat! All right, Skipper. We know where we stand now. Let's unhinge the guns and give them—"

"They are a dozen," reminded MacDonald nervously, "to our one."

"All right! So what?" blazed O'Day. "Our weapons will more than match theirs. And we're protected by Dr. Kang's force shield. Come on!"

He took three quick strides toward the nearest gun embrazure, and was in the act of whipping the tarpaulin from the rotor port when Borisu's voice sheered through again.

"That was the reformed corsair's voice I heard, was it not? Well, *Captain* O'Day—" He stressed the title with gentle irony—"I suggest you think twice before opening hostilities. Having shared your comradeship I am well aware as to the power of your weapon and the strength of the learned Dr. Kang's force shield. However, the weapons mounted on our craft are not the destructive type averted by electrical barriers. *Our* guns are

ultrawave cannon."

"Ultrawave!" repeated Dr. Kang, and stayed Lark O'Day's hand swiftly. "Stop, Lark! If he's telling the truth, our shield is useless."

"What? But I thought it would stop anything."

"Anything of material or radiant nature—*except* cosmic rays. They will penetrate *all* matter; even our force shield. One blast of their guns can loose upon us the dwindling destruction which they have been using to destroy our universe."

"Well spoken, Dr. Kang," came the taunting voice from afar. "You grasp essential truths with admirable swiftness. And now—your surrender, Captain? You will drop your force shield, permitting a boarding party to enter your ship."

All the while the Magogean had been speaking, Hugh Warren's fingers had been twisting dials on the control panel. Now, his face aflame with anger, he roared defiantly, "Like hell we will, Borisu. The Space Patrol dies but never surrenders! If you want to board us . . . *come find us!*"

And his finger pressed suddenly down upon the green key installed by the Jovian engineers. A violent shudder trembled the *Liberty* from stem to stern, warped plates screamed in metal agony, and for an instant it seemed the straining ship would shake herself to shards, so great was the shock of that abrupt movement.

But even as lurching passengers tumbled headlong upon the metal deck, as contact broke abruptly between their ship and the Magogean fleet, Warren pressed a second stud: this time the red one.

Then horror loomed upon horror. For in the vision plate which foreshadowed the *Liberty's* trajectory, appeared a gigantic darkness blotting out all space.

Gary Lane cried hoarsely, "My God, what —"

"Hugh!" screamed Nora Powell. "What have you done?"

BUT Warren's voice smashed through their cries of dismay, roaring crisp orders to the control room below. "Search beams, Howard!"

And the young engineer's voice came back snakily, "Aye, sir! Search beams it is, sir!"

The darkness before them was rent with silver radiance. And what had seemed a black, impenetrable nothingness was now revealed as a black landscape over which the *Liberty* was hurtling like a bird in the night. Dark hills loomed starkly through whipping fingers of fog. The searchbeams limned sharp outlines of crags and gulleys, forests thick with uncombed vegetation. . . .

Dr. Bryant cried, "A planet! But which, Warren? One of our own universe, or—?"

Warren grinned mirthlessly. "Not on your life. The only place to lick an enemy is in his own back yard. Thank heavens, those Jovian engineers taught me how to use their tricky drive! I warped us clean around that space fleet into the night side of their home planet. The world you see beneath us is *Magog itself!*

"And now for our landing—" His fingers flickered over the studs. The *Liberty* dropped slowly, smoothly, speed dwindling as Warren searched for a likely landing place—and found it. A low plateau, cradled like a saucer between encircling hills.

No lights gleamed there; no glare of hostile cities. There was only Stygian darkness and the interminable greenery of jungle. The *Liberty*, en-

veloped in its matter-repulsing shield, struck once lightly and bounced; dropped lower. Warren released the shield that the ship might settle. Through the metal hull they could hear the crackling of timber as the great ship plowed its way through virgin forest land . . . then the grating grind of metal against rock as the ship wallowed to a landing . . . and lay still.

Hugh Warren cut controls. He turned to his friends, panting, his forehead damp with perspiration. But he forced a shaky laugh, and . . .

"All right, folks. Turn in your tickets. This is the place we started for."

"SO," SAID Flick Muldoon. "we're here. Actually here on Magog! We've been working and plotting and contriving it seems like forever. And all of a sudden when it seems like we're licked bingo!—here we are! Flick's face had a curiously woebegone expression. "I'm confused. No kidding, I'm up a tree. All this time, even though I knew where we were heading, I kept thinking subconsciously that we'd never make it. And now we're here, and I'm puzzled even worse. What are we going to do here?"

Dr. Bryant said, "Well, I should say the *first* thing we must do is test the gravity and atmosphere of Magog to make sure it's safe for us to venture outside."

"We won't have to worry about that," said Warren. "I told you the *Liberty* had all the latest gadgets. The testing apparatus went into action automatically upon our landing. We'll have a complete report in a few minutes."

"Then," said O'Day, "the first thing we must do is find a good hiding place for the *Liberty*. Or if there isn't one, camouflage the ship immediately. It's night now, but with morning I've got an idea the Magogean fleet will be circling this planet looking for us. Borisu and his buddies aren't dummies. They'll know we used the quad drive to scoot, and they'll leave no stone unturned—"

Dr. Kang interrupted quietly, "I think that is *another* point on which you need have no apprehension. By the time morning comes we shall have either accomplished or failed in our mission."

"What?" Gary Lane whistled. "Aren't you a little optimistic, Doctor? We're going to work as swiftly as possible, yes. But getting our job done in a couple of hours is a bit too much to expect."

Kang's ivory features framed a wisp of a smile. "Have you forgotten Borisu's remarks concerning the time differential between our planets?"

Gary said testily, "Not by a long sight. And it's been worrying me plenty. Borisu said Magog had been playing the cosmic ray cannon on our universe for only twenty years. Yet it is a scientifically recognized fact that the planet which existed between Mars and Jupiter in our system was destroyed no less than 40,000 Earth years ago. Isn't that so, Dr. Bryant?"

"Quite true, Gary," agreed the older scientist worriedly.

"Therefore," pointed out Lane, "every Magogean year is the equivalent of two thousand Earth years; every day on this planet the equivalent of three Earth years. And—" His breath caught in his throat—"since our calculations prove that the critical dwindling point of Sol can be at most no more than two months away, we must fulfill our task here in a matter of Magogean *hours*—or our universe will die!"

AT HIS words the younger men in the turret sprang to their feet as one. Flick spoke for all when he cried, "Then what are we waiting for? Let's get going! My God, we've got to move and move fast—"

"Gently, gently," chided Dr. Kang. Again one of his rare smiles touched his lips. "Youth is impetuous. It is written, 'The young man tests the balance of the sword; the elder sage admires its chaste engraving.' Dr. Lane's discovery would be frightening . . . if it were based on fact. But there is another way of viewing the matter. One you have not pondered. Have you failed to take into consideration the *length* of the Magogean year?"

Dr. Bryant stopped him in midsentence, his eyes lighting with swift admiration. "But, of course! That is extremely important. If the orbital revolution of Magog takes longer than that of Earth—"

"I believe," said Dr. Kang placidly, "you will find it does. Approximately 2000 times longer! We have not, just now, the time to study the truth of my conjecture. But from certain factors I have noticed, I believe we shall find this to be true. The size of Magog argues a slow orbital movement.

"In brief, my friends, I conclude that Magog revolves about its primary but a single time while Earth is whirling around the Sun *two thousand* times. There is, therefore, a one-to-one correspondence between the time units of our systems. We may completely disregard their relative size. A 'day' on Magog may equal 2000 Earth days—but twenty-four Earthly hours spent on Magog are of no longer duration than the same period spent on Earth. We may govern our actions accordingly."

Gary said soberly, "I certainly hope you are right, Doctor. Otherwise, howsoever short a time we spend in this system may be too long to save our universe. But—but you realize what this *means,* don't you? I am thinking now of the life span of the Magogeans."

Dr. Kang nodded. "I realize very well. It means that if they live an average of sixty to a hundred Magogean years, each of them exists for a period of many *thousands* of Earth years. But—" He shrugged—"is it too unreasonable to concede this? Has not our Earthly science already suggested that the shortness of our life span may be due to the bombardment of cosmic rays? Here on Magog where they do not live beneath this lethal radiation—"

Dr. Bryant's fine features cleared, his eyes lighted raptly. He said, "Then it is not only the *immediate* existence of our universe for which we are fighting, but another and greater goal. One of which mankind has dreamed for centuries. If we succeed in putting to an end this cosmic radiation, we may win for our people not only life, but—"

"Yes," nodded Dr. Kang. "Almost . . . eternal life!"

CHAPTER XVI

Cosmic Allies

"CRIPES!" said Flick Muldoon, awed. "Eternal life! Golly, that's almost enough time for a guy to catch up on his back sleep."

"Or," chuckled O'Day, "really learn how to play a good game of tri-chess.* But this is no time to be talking about things like that. The first problem is: how are we going to contact the Magogeans again?"

"I think—" Hugh Warren had risen abruptly to his feet as a light flashed

on the signal panel before them—"I think we won't have to worry about that problem. The Magogeans seem to have already contacted *us!* See that warning? It means there is someone at the airlocks."

"Then quickly," snapped Gary, "turn on the force shield, Hugh!"

Dr. Kang shook his head. "It is too late, now. If invaders have lighted the warning signal they are already inside the protective envelope." He turned worried eyes to the space patrolman. "What shall we do, Captain?"

"There's only one thing *to* do," grunted Warren. "Find out who it is, then blast them to hell-and-gone out. Hawkins!" He bawled the name out over the audio. A moment later the little cockney steward bustled into the turret.

"Comin' hup, Captain. You called me?"

"Yes. Break open the ordnance lockers. Supply every man aboard with arms. I'm afraid we have visitors."

Hawkins grinned impishly. He didn't scare easily. "Right, Cap'n. Side arms all around it is, sir." And he scampered away as Warren turned to his companions.

"All right. Let's go have a little look-see at our unexpected guests."

Moments later they were standing in the companionway beside the fore sta'b'rd lock. As the turret's warning system had advised, someone was outside the ship. A duplicate signal, activated by electric eye, was flashing on the airlock's inner port. Not only that, but through the aerated protection chamber could be heard faint noises of someone rapping or fumbling with the exterior controls.

O'Day nodded at Lane significantly. "Magogeans, all right. But our pal Borisu's not with them. He'd know how to operate the lock from outside. They don't."

Gary said tightly, "Well, since the mountain can't come to Mohammed—" and drew down the lever which opened the inner port. The noises were clearer now. In addition to the scrabbling sound there were faint murmurs, a low babble of indistinguishable voices.

Warren glanced swiftly at instruments on the airlock wall, nodded to his companions. "Gravity and atmosphere OQ. We're adjusted to the first by our changed size, I guess, and the second approaches Earth's normal. Everybody set? I'll throw open the outer door. The minute you see them, let 'em have it."

And his hand reached for the second control lever, that which would open the passageway between the *Liberty's* interior and the outer darkness. But even before the activating machinery could throw the massive door open, a single voice raised above those others which muttered outside. And the words it spoke startled all the *Liberty's* equipage into stunned immobility. For in clear, unmistakable terms, the voice repeated a single phrase in three languages . . . Jovian, Solar Universal, and Amer-English.

"Phaedu m'akki; toratu'sl! . . . Amiji sumo; ammité . . . We are friends; let us in!"

Gary gasped, "Good Lord! English!"

"A trick!" Lark warned. "Don't take any chances!"

But then the great door swung open.

*Tri chess: a highly involved game of tri dimensional chess played on a series of eight superimposed glass time boards. Pieces move not only horizontally, as in the ancient Persian game, but vertically as well. Two additional types of pieces are used in conjunction with the traditional "pawn, knight, bishop," et al. . . . the "pilot," which may move in any direction horizontally or vertically until opposed by another piece, and the "ranger," which may move five vertical spaces and three horizontal, or vice versa, disregarding occupants of those squares.—*Ed.*

And even *he* allowed his ready weapon to fall to his side as there stood outlined in the bright oblong of the portal a group of azure-tinted men similar in trappings and appearance to their Jovian benefactors.

DR. BRYANT choked, "Men of Jupiter! But how come *you* here?"

The leader of the newcomers, both arms widely outstretched in token of pacific intent, smiled with happiness at learning which tongue he should employ.

In precise and only faintly accented English he said hesitantly, "No, not uff Jupiter, Misser. We are chilttren of the planet Gog."

"Gog!" exclaimed Gary. "But that planet has not existed for—"

A cloud darkened the stranger's eyes. He nodded sorrowful agreement. "For many centuries your time . . . for long years, ours. Nor did any uff us here ever see our parent planet. We are the children and the children's children uff our forefathers who once ruled Magog."

Warren, suddenly remembering his obligation as space captain and host, said, "Gad, this is incredible! But we can't talk here. Come into the ship where we can be comfortable while we get acquainted."

The Gogean leader turned to the doorway, raised his voice to an assemblage of attendants. Muttered replies and the stirring of many bodies in the darkness betold acceptance of his command. Then, designating one or two to be his companions, he followed Warren to the *Liberty's* lounge.

And there in an ultramodern Earthly space-cruiser was held the strangest conference ever attended by humans. A conference between adventurers of two solar worlds and representatives of an alien galaxy whose ancient culture had long since vanished from mankind's ken.

It was a give-and-take exchange exciting to both sides.

"We haff been looking for you," said the Gogean leader, Tsalnor, "and hoping against hope we might somehow get in touch with you. When we saw your ship and recognized it to be no space vessel of the Magogean fleet, our hearts leaped with joy. Joy which increased when you landed scarce four *talus* from our encampment."

"Saw our ship?" exclaimed Nora. "In this impenetrable darkness?"

THE Gogean shrugged. "Darkness . . . light . . . what difference do these things make? We whose lives are spent in everlasting night make no distinction. Long years ago we were forced to either lose the power uff vision entirely or adapt our eyesight to seeing in the dark. Our people haff done the latter.

"When, years ago, the Magogeans with the help of their diabolic ultra-wave cannon succeeded in overthrowing our empire, those uff us who were not slain sought refuge here on the eternally dark side of Magog."

"Eternally dark side!" broke in Dr. Kang. "But of course! I had guessed the period of axial revolution might be slow, but did not realize it coincided *exactly* with that of your planet's orbital revolution about its primary. Like our solar planet Mercury, Magog presents always the same face to its sun!"

"True," said Tsalnor bitterly. "And for two decades haff our people languished here, never seeing the glorious light uff day, save when a few members uff daring expeditions venture into the Twilight Zone for essential supplies we cannot here obtain."

"But—but don't the Magogeans know you are here? There must be

many of you."

Tsalnor said bitterly, "We number in the hundreds uff thousands. And they know we are here, yes. But they dare attack us no more than we have dared attack their fortified cities. There exists between us an implacable hatred, but an armed truce. For neither force dares meet its enemy on that enemy's home terrain.

"Yes," he continued, "we who were millions now number in the hundreds uff thousands. But those who claim Gog is dead would eat their words to see the cities we haff hewn from these harsh rocks. We haff culture here, libraries and science.

"And—" he gritted—"an ever watchful army uff men who will someday arise to reclaim that which is rightfully theirs!"

Dr. Kang roused suddenly from an attitude of thought. "There is one thing which puzzles me, Tsalnor. Your knowledge of the language of our universe. You addressed us not only in *modern* Jovian tongue but in Universal and English as well. How knew you these languages?"

Tsalnor answered proudly, "By long study and careful translation, uff course. For many of your centuries we haff been listening to the speech transmitted via etherwaves by what you call your radio. Our people have long studied your three most-used languages against the ever-hoped-for day when our empire should be resurrected."

"But," demanded Gary shrewdly, "since you know our tongue, how is it *you* never attempted to communicate with us? If you have receivers to pick up our radio conversation, certainly you should be able to build transmitters as well?"

"Certainly, we *could* do so, Earthman. But we would not dare. We are not fools, but neither are our adversaries. Were we to build transmitting units here on Magog's Darkside, by directional finders they could locate our cities and send a space armada to wipe us out uff existence.

"No, we haff had to wait and build and hope and plan for just such a day as this.

"But now—" And his eyes lighted raptly—"Now at last you haff come! Working together, we shall overthrow the Magogeans, stay the disaster you haff told me threatens our ancient universe, and again be free to look upon the sun."

CAPTAIN Hugh Warren spread his hands in a gesture of despair. "You know you have our friendship. We would do anything within our power to help you, but—what can we do? If you, with a great army, have never been able to breach the Magogean defenses, what can our pitiful group do—?"

"You," said Tsalnor promptly, "can do what no Gogean can do . . . effect entry to Magog's capital, and there work from within to destroy the barrier wall which protects it. When that wall falls our warriors will flood into the city of Khundru in hordes—"

"We? But why *we*—?"

Tsalnor smiled mirthlessly. "It is a matter uff hue."

Warren jumped. "Who, me?"

"No," said Dr. Bryant. "Not you, Hugh—hue! I see what he means. It is a matter of fleshly color. The Magogeans are our color, or nearly so. Dr. 'Boris Anjers' was of a complexion sufficiently similar to that of an Earthman to pass himself off for many years as a Eurasian. Similarly *we* might, I suppose, masquerade as Magogeans—"

He turned a questioning gaze to Tsalnor. The Gogean nodded. "Exactly. Let one uff our blue-fleshed

brethren but present an appearance before any Magogean and he would be rayed down mercilessly without ever being granted an opportunity to speak.

"You alone haff the coloration which would permit entry into the city uff Khundru—"

"Where *is* this city?"

"A very short distance from here. Scarce more than a hundred *talus*, on the edge of the Twilight Zone."

"And you say it's the Magogean *capital?* Isn't that location a rather dangerous one for their most important city?"

"On the contrary, Khundru is located at an axis uff vital strategic importance. It spans the estuary uff the river Driya where it meets the Pinoor Sea, and is protected from assault from either side by lofty mountain ranges. Its rear is protected by Darkside."

"But you spoke of a barrier shield."

"Yes. It is that which prevents our armed forces from storming Khundru. About and around their capital the Magogeans have forged some sort uff an invisible barrier impenetrable by any material substance. What this is, we do not know. Unable to study it at first hand, our scientists haff never been able to study its secret."

"Invisible barrier! A force shield!" Gary Lane spun swiftly to their Martian comrade. "Dr. Kang, it must be something like the force shield you installed on the *Liberty!*"

Kang nodded slowly. "Very likely. I know now why Borisu never questioned *me* so eagerly about the activation of *my* device as he did the Jovian engineers about their quad warp. It was because he already understood it."

"You mean," demanded the Gogean, "you *comprehend* this mechanism?"

Kang nodded.

"But then no one need enter Khundru!"

"Unfortunately, someone **must**. There is no way to rupture an entropic force barrier from without. If your divisions are to storm Khundru, the wall must be broken from the control room inside that city."

GARY drew a deep breath. "OQ. We're elected. Lark . . . Hugh . . . Flick . . ."

"A moment, Gary," interrupted Lark. "Just how are we to effect entry into Khundru? Will there be questions to ask or answer?"

Tsalnor puzzled briefly. "It would be best," he decided, "to pass yourselves off as common serfs. We shall teach you the Magogean language and acquaint you with its customs. But it would take too long a training to enable you to pass yourselves as members uff the ruling class. There are but two divisions uff Magogeans. The common people, serfs who are little more than feudal slaves; and the kraedars, or overlords—"

"That's what Borisu called himself," remembered Gary. "Kraedar."

"The kraedars are the military and ruling class. You would never be able to pass yourself off successfully as one uff these. Therefore it were wiser to allow yourselves to be taken into the city as workers. This may entail some hardships, but you will be inside where you want to be. And once there, your own ingenuity can devise ways and means uff doing that which is needful."

"I thought," nodded Kang, "the situation would be something like that. In that case, Gary, you must change your plans. Nothing would arouse Magogean suspicion quicker than to have five strong, strapping, young strangers seek entry to their capital city . . . particularly on the heels of the report Borisu may even now be submitting to his peers."

"But who, then—?" questioned Gary.

"Why not," suggested Kang quietly, "just my daughter and myself? We understand the operation of the force shield. Of the two of us, surely *one* can find some way to break the Magogean barrier for a short time."

Gary said stubbornly, "The idea is a good one, Dr. Kang. But two is not enough. Let it be the *three* of us."

"The *four* of us," broke in Lark O'Day. "If Penny's going, I want to be in on this shindig, too."

"Why not," suggested Nora Powell, "count me in? With two women out of five, certainly we would seem an innocuous little band. A family circle, so to speak, with Dr. Kang as the parent, Penny and I his married daughters—"

Kang said dubiously, "I don't know. There is too much difference in the pigmentation of our skins for us to be taken as a family unit. True, my daughter's flesh is little more golden than yours, Miss Powell—"

Tsalnor dismissed the objection with a short laugh.

"You do not know Magog, Dr. Kang. Such dissimilarities in coloration are not the exception but the rule amongst their people. The Magogean hordes haff interbred to such an extent that the closest blood brothers oft look like men of different races. Miss Powell's plan is quite feasible."

"OQ," said Gary. "Then that's the ticket. How long to put us through this teaching-training period you were talking about?"

"Not long. Those things will be done during studying periods and even while you sleep . . . electrically."

"Then," said Gary, rising, "let's move the *Liberty* to your headquarters and get on with the job. Because there's lots to be done, and very little time left to do it in."

CHAPTER XVII

Inside Khundru

"GARY," said Nora, "I'm frightened. Suppose—"

"Hush, my dear," warned Dr. Kang swiftly. "From now on speak only in the Magogean tongue. Suspicious ears may lurk at any crossroads."

A full week's time, as measured by earthly watches, had passed since the *Liberty's* fortunate landing near the Gogean camp. In that time all the space venturers, and particularly those who were to attempt the first reaching of Khundru's gates, had been given an intensive training course in the other world's formalities. Through means of instruments so ingeniously clever that the Earthmen could only marvel at them, there had been electrically superimposed upon their brain structures a knowledge-pattern giving them complete acquaintance with the Magogean tongue, habits, customs, traditions, something of the history of the race, and even a general knowledge of current events.

"I'm sorry," whispered Nora, shifting to the Magogean tongue, "but—but I'm frightened, Gary. Suppose we should meet Borisu?"

Lark O'Day grunted. "He'd have one hell of a time recognizing us dressed —or *undressed*—like this."

He scowled disdainfully at the crude *peon* garb with which his sturdy frame was draped; clothing which consisted of little more than worn sandals, a twisted, filthy rag about his loins, and a loose, sacklike halter draped from his shoulders.

Gary admitted ruefully, "We *aren't* exactly candidates for a sartorial award. But this is the best disguise

we could possibly effect. The Magogean kraedars spurn their slaves like dust beneath their feet. Even if we *were* to meet Borisu, he would look past or through us and never notice our faces. And that's what we want."

"It's damn hard on the girls, though," grunted O'Day. "The least the blue boys could have done was given us a lighter cart. One we three could handle by ourselves, without *them* having to act as dray horses, too. Ease up there, Penny. Don't ruin those pretty hands."

Kang's daughter glanced at him sidewise and smiled. She said in a soft, liquid voice, "Do not worry about us, Lark. It were better Nora and I ruined our soft hands on this cart than that your fighting hands should not be ready when the moment comes. Is it not so, Nora?"

Nora, tugging beside her at the draw-tongue of the cumbersome vehicle which comprised part of the typical *impedimenta* of lower class Magogean nomads, smiled agreement.

"Much better. Though I confess I don't envy those whose rôles we are playing. I wouldn't like to do this *all* the time."

"I don't believe," said Kang in a low voice, "you are going to have to do it much longer. For see? Before us? A city on the river's edge, and armed soldiers watching our approach. You know our story?"

"Yes."

"Good! Remember it well. We must make no mistake."

THIS was their last exchange of free, unguarded speech. For as he had said, the soldiers had spotted them, and a company was moving forward to challenge their approach.

They did so, Gary Lane could not help thinking, in a manner typically Magogean. Not with any warmth or friendliness, but in dictatorial tones of sharp suspicion.

"Hold, there, slaves! Who are you? Whence came you? Whither are you going?"

Gary, haltered shoulder to shoulder beside his friend and comrade, felt Lark O'Day's body stiffen with suppressed rage at this form of address. But like himself, O'Day remained hunched, with head hanging stupidly low, as if both were the witless serfs they pretended to be.

The elderly Kang spoke, as had been agreed, for their group.

"Greetings, O warriors of strength and valor. I am the freedman, Kengu. These are my daughters and their mates. We come from the Twilight Zone to seek employment in the city of Khundru."

"Twilight Zone?" demanded the warrior captain suspiciously. "What were *you* doing there?"

"For three years," answered Kang, "we labored there in the service of the *kraedar* Alisur. Now the noble *kraedar* is dead. We have no master."

He could say this confidently. From a Magogean newscast had been learned of Alisur's recent and opportune demise. That Alisur had been an explorer operating in the Twilight Zone was a feature upon which they had been swift to capitalize.

The warrior captain nodded and strode to the cart, pulled back the sacking with which it was covered.

"And what have you here? Valuable goods, no doubt, you stole from your dead master?"

"Nay, Noble One. Naught but our common household belongings. Bedding and articles of furniture. Clothing . . . utensils for cooking."

The captain, peering into the laden cart, grunted disdainfully and threw

back its cover. "The old man speaks truth. The foul cart reeks of rubbish. Very well, old fool, on your way. Report yourself to the guardsman at the Twilight Gate, and show him this pass." He scribbled briefly on something resembling paper, tossed it at Kang. "This will permit you to enter the city. Wait!" A look of cunning stole into the chieftain's eyes. "Of course there is the matter of an entry fee. You have some money?"

Kang answered humbly, "Very little, my lord. Scarce enough to sustain us until we have succeeded in finding employment. Barely five units—"

"Hand it over!" demanded the other harshly. "There are five of you. The entry fee is a unit each. Well, swiftly, slave! Or must I use the lash?"

HE FINGERED almost hopefully the braided whip which dangled at his belt. But docilely Kang withdrew a sweat-stained leather pouch from his garments and handed it to the captain. And without further challenge they stumbled down the road to the entry gate.

Here they were stopped by a sentry, and Kang proffered the captain's note. The sentry read it, Gary thought, almost angrily, and grumbled, "Curse Draliu! I suppose he got what money you had?"

Kang answered meekly, "We had but five units, sir. And that was the entry fee, the captain told us."

"Curse him," repeated the sentry. "He bleeds them *all* white before they get this far! Very well, in with you. But look sharp you move in a hurry when this light turns white. If you're only half way over the line when the shield closes again, God help you!"

He laughed unpleasantly, pressed a button, and spoke into a diaphragm beside him. An instant later a light at the sentry box glowed white, and hurriedly the five slaves, straining, tugged their heavy cart into motion. They had barely succeeded in crossing the designated line when, with a sudden, crackling sound, a dust film rose from the ground behind them and the white light went out.

Gary, glancing back at Dr. Kang, saw the old man's forehead was beaded with perspiration. When he looked askance, Kang whispered, "They don't take many chances. They didn't leave the barrier open long. If we had been a minute slower in bringing the cart through—"

"What?" asked Nora Powell.

"The closing barrier would have smashed us into atoms. But we have learned one important thing, at any rate."

"Yes?" asked Gary.

"Again," said Dr. Kang, "as several times before, we have tangible evidence that the Magogean culture is not so high as they would believe. *My* people—" he said almost proudly—"have ways to open one portion of the force shield at a time, admitting friends to its protection through a small opening. Theirs is a more elementary form. To open it in any spot is to open it everywhere. That may be a handy thing to know."

Thus entered Gary Lane and his companions into the city of Khundru. It was a strange city. Even Lark O'Day, who of them all was best capable to judge, having flung his madcap way afar amongst the planets of Sol's universe, admitted that.

"I've seen Greater New York," he said, "and Imperial Ceres. They're about tops in ultramodern culture. I've seen the barbaric splendors of the Venusian capital, and the filthy mud hovels the Mercurians call—or used to call—their temples. But never any-

where have I seen anything which looked like this."

And he shook his head bewilderedly at the heterogeneous architectural display sprawling about them. Khundru was a city of contradictions: the dwelling place of a people who believed themselves capable of attainments greater than they possessed.

HERE both sides of a thoroughfare so exquisitely inlaid and tessellated that it might have graced the entrance to a potentate's *seraglio,* would be lined with dingy, malodorous dwellings earthborn dogs might have scorned to sleep in. Turn a corner and the eyes widened to behold great gilded temples towering skyward in a setback architecture dwarfing the most hopeful achievements of any solar race. The sky above the city was athrong with space and air vessels . . . huge, thundering rockets and gossamer-winged glidercraft of scintillant beauty . . . but the streets below rumbled with the wooden wheels of such cumbersome vehicles as that which they themselves hauled painfully along.

The sights, the smells, the street sounds of the city were comparable to those of an oriental bazaar in, thought Lane, Earth's woefully anachronistic Twentieth Century; that period when only a portion of humanity's masses had known the delights of civilized existence.

Even without the benefit of the training to which they had been exposed they could have picked their way almost unerringly to the city's center. Khundru was built like a huge wheel about the central hub which was its Palace Royal. The streets through which they threaded their way was a spoke of this wheel.

In the Palace Royal, they knew, could be found not only the governing but also the dwelling chambers of the highly elect *Kraedaru,* the ruling gentry of Magog. There also was to be found the vital control center of this sprawling octopus whose tentacles they must paralyze so the Gogean army could burst into the city.

But if they had hoped to attain so far without challenge, they were bitterly disappointed. For they had penetrated scarcely a third of the way when a sudden clamor aroused them from their furtive study of the city. Voices cried out, whether in surprise, alarm or joy was hard to tell, and the milling throng which but a moment ago had rubbed shoulders with them too closely for comfort began to clear from the thoroughfare and huddle fearfully against the walls of the street.

Gary glanced at Dr. Kang, his eyebrows asking the question his lips barely muttered.

"What now?"

Kang answered softly, "I do not know. But there is a saying of your people, 'When in Rome, do as the Romans do.' Quickly, move the cart to the curbing, and let us take our places with the others."

But before the awkward tumbrel could be dragged from the right of way, with a flurry of brazen hoofs and a raucous clamor of trumpets there galloped around the corner and squarely down upon them a small troop of mounted lancers.

THERE was room and to spare for these haughty warriors to pass them by . . . but such was not the way of the Magogean *kraedaru.* As the cavalry captain, drawing near, saw upon the street one cart which had not yet moved completely to the curb, one tiny knot of struggling serfs who had not as yet taken abject posts against the wall, a flush darkened his cheeks

The cavalry captain bore directly down on Dr. Kang's cart

and his eyes darted anger. With a guttural cry he changed his troop's straightforward charge, bore directly down upon Dr. Kang and his "family." Then, at the last possible moment, when it seemed certain his armed war-

riors and their mounts must trample ruthlessly over the bodies of the trapped quintet, shattering their cart to splinters, he drew up his men, and, his voice heavy with rage, leaned from his saddle and cried to Dr. Kang:

"You there, slave—what means this? How dare you deliberately block our passage?"

"Why, you—" began Lark O'Day.

But Lane, standing with his head abjectly bowed beside his friend, gripped the other man's wrist to silence him. And from the cart, Dr. Kang answered in a thin, meek voice;

"Forgiveness, Excellence. Your servants did not know—"

"The lash!" cried the warrior captain. "Twenty to each of them, then let us be gone. Or—*Wait!*" His eyes narrowed as the implication of Kang's words struck him. "Did not know? You did not recognize our signal as we approached? Where are you from? You are not of Khundru."

"Nay, master," whined Kang. "We are poor exiles of a far northern city, Tabori by name, but recently come out of the Twilight Zone to seek service in the noble capital of our race—"

"Recently come?" The chieftain's eyes narrowed still farther. Then: "Where is your master, serf?"

"Our master is dead, sire." Kang explained as he had explained to the captain of the barrier guard. But it was evident that in Khundru the higher a man's post the greater became his authority and greed. For scarce had he revealed that their erstwhile master was no more than the cavalry leader interrupted him.

"No master, eh? That situation shall soon be remedied. By the rank and authority which is mine as a *kraedar* of Khundru I hereby claim you as mine own. Not—" He laughed —"that I shall put you to use. A Captain of the Royal Guard has no need of house servants. But your two sons should make sturdy slaves for the tilling of someone's land. And your two daughters—"

He paused and stroked his jaw reflectively. It was clear that the Captain of the Royal Guards was reconsidering his need of servants. To forestall his thinking, Kang spoke hurriedly, invoking a law which he had learned existed amongst the Magogeans.

"A thousand pardons, sire—but we are not slaves. We are freedmen. When our master died he gave us household goods and chattels wherewith to establish our own little home—"

"So?" The *kraedar* laughed mockingly. "Yet if you had not these things, old man, you would be slaves again, is it not so? Well, then—"

He turned and barked a command to his soldiers. Instantly bright weapons leaped from their belts to their hands. And it was with the barest warning the quintet of Solarites managed to scramble from the proximity of the cart as the blazing rays of a dozen ultrawave handguns spat flame upon the cart. In a moment of searing fire the vehicle was gone, blasted to oblivion by those frightful rays.

"So," continued the captain, "having no chattels of your own, you are again slaves. *Tramir* Chingru—herd me these cattle to the mart, and there get for me the best price you can. And mind," he added dangerously, "you bring me back *all* the profits. Make no mistake as to the amount."

A single warrior fell out of formation, gestured the quintet into a little knot before him, and pointed the way down a side avenue. The warrior captain, s m i r k i n g with satisfaction, spurred his company on its journey.

An hour later all five were parcels

of merchandise in the slave mart of Imperial Khundru.

CHAPTER XVIII

The Control Tower

STANDING there in the slave mart of Imperial Khundru, Gary Lane realized—as millions of his human brethren had discovered in past ages—that it is one thing to experience an emotional uprising when *reading* about a situation, but quite another to be involved in that situation yourself.

In his university history classes Gary had read of the day when unenlightened Earthmen enslaved their human brothers, offering their flesh and services to hire on the auction block. From a purely rational standpoint he had disapproved of this barbaric custom, in this age happily abandoned. But now, here on a planet inconceivably far from the little world called Earth, he himself was not only *witnessing* such a deal in human wares but was, indeed, one of the chattels to be auctioned!

As his mind busied himself with abortive plot and speculation, his eyes roved covertly about his surroundings. He saw the raised central dais upon which a lean and hawknosed auctioneer singsonged the merit of a thick-thewed and filthy serf. He saw the encircling throng of bidders, Magogeans ranging through all walks of life from the lowest freedmen land-owners, through the merchantmen exporters, to the elaborately caparisoned lords and nobles who lolled in their scented boxes, raising listless fingers in token of bid when an offering took their fancy.

What turn this *contretemps* would take he could not guess. But he was not left long in wonderment. For the warrior into whose hands they had been placed was impatient to rejoin his troop; with a stern command that his charges await his return, he shouldered his way through the mob to the auction block.

As soon as he had gone, Lark turned to Gary, a question in his eyes.

"Make a break for it?"

Dr. Kang spoke before Gary could answer. "It would be useless, Lark. They would only catch us again. As serfs we cannot expect freedom. We might as well wait and let them sell us to whomsoever they will. If we cause no trouble we can more easily learn that which we need to know."

Gary said, "The cart's gone. That's a bad break. With it were our cached arms. We're helpless now, trapped in the middle of Khundru—"

"Hush!" warned Nora. "Here comes our guard again, with the auctioneer."

IT WAS so. Apparently the soldier had argued to the tradesman the necessity of selling this quintet immediately. For though the auctioneer grumbled and complained, he led the five to the dais. His shrill singsong resumed its wheedling chant.

"And now, O nobles and freedmen," he whined, "a special consignment from the chattels of the *kraedar* Pridu, Captain of the Royal Guards. A family of Taborians, newly come to our city from years of talented service in the Twilight Zone under the deceased *kraedar* Alisur. Said family consisting of one elderly male in good physical condition, two young and sturdy males, and their mates, two fine, fertile females. How is your wish? Have I a bid on this family as a lot?"

"Fine and fert—" began Lark O'Day, outraged.

Kang silenced him with a gesture.

There came no bid from the assemblage, but a voice cried, "We want

no job lot goods in muffled packages. Bring them out one at a time, and let us see them. The females first."

"As you wish, my lord," agreed the auctioneer. "So be it." And he reached down from his dais, seized the wrist of the lovely Martian, Pen-N'hi, and hauled her to his side. "Behold, O wise purchasers," he cried. "Here is one of the females. A fine, staunch creature in the bloom of her young womanhood. Lovely and graceful as the fleeting *catooni* * but yet—" And he winked lecherously at the mob—"not *too* young to be acquainted with the Lore of a Thousand Delights, in which she was well trained by her late master."

"Rat!" grated Lark between his teeth. "Another crack like that—"

"Silence!" whispered Kang. "His words mean nothing. It is written, 'Speech will neither spot the lily's face, nor hide the leper's sores.' "

A voice raised from the audience. "Two hundred *dwari,* Tisru!"

Tisru's sharp face looked grieved. "Two *hundred,* sire? For a beautiful mistress such as this? Two *thousand,* you mean. Behold this graceful throat, this slender waist . . . these tiny hands which can thrill with a thousand caresses—"

"Three hundred," cried another voice.

"Four hundred."

"Five hundred."

"Six."

The auctioneer's oily insinuations did not lack the power to titillate his listeners. A flurry of interest sharpened the bidding.

"Eight hundred" . . . "Nine!" . . . "One thousand *dwari!*"

"Behold those eyes, those feet, those golden arms . . ."

"Twelve hundred, Tisru!"

"She can sing and dance and play sweet music . . ."

"*Fourteen* hundred!"

"Behold those lips, gentlemen . . . those dainty, shell-like ears—"

A coarse laugh broke from one of his listeners.

"Stop pointing out things we all can see, Tisru. I told you before, we want no packaged goods. Off with the woman's rags that we may know on what we bid."

It was evident that Tisru had been cleverly biding his time for some such request. Now, with the air of a sculptor preparing to unveil a masterpiece, he pretended humble acquiescence to the demand.

"Very well, my lords and masters," he whined. "Then prepare yourselves for a vision of blinding radiance—"

HIS greasy talons reached out to clutch the single supporting halter of Penny's crude garment. The girl froze at his touch, and a color suffused her clear, golden skin, but true to the teachings of her race she said no word, but stood stock-still with lowered head.

But if Penny could endure personal degradation for the good of their cause, and if Kang could philosophically accept this as a necessary evil, not so the two young Earthmen. As if both stanchions of a bridge had broken simultaneously, Lark O'Day and Gary Lane hurled themselves forward side by side.

O'Day's voice was a blaze of fury. "Take your hands off her, you slimy weasel!"

With a slashing blow he loosened the man's grip, hauled Penny to the shelter of his arm.

Tisru gasped. Fierce anger nar-

Catooni: a Magogean woodland beast similar to the Virginia red-tailed deer, but with six legs and two sets of vestigial wings.—*Ed.*

rowed his eyes, and with a hiss he groped for a knife sheathed in his belt. But he never touched it. For at that moment Gary struck. His right fist moved scarce fifteen inches, but it smashed the auctioneer's bearded chin with a furious accuracy. The man flew backward off the dais, flailing, awkward, scrambling, spitting blood from his broken lips.

Then everything was bedlam. The crowd came to its feet, roaring in outrage at the sight of serfs who dared rebel. Knives whipped from belts as figures surged forward. Not only knives but deadly ray guns, too. And Gary panted, "We're in for it now! Stand them off as long as you can, Lark. I'll see what I—"

But there came an interruption. A sharp incisive voice rose from somewhere at the back of the throng.

"No! Touch not the slaves! Let none move another step!"

All heads turned as one. A current of astonishment coursed through the throng, swelling to a murmur as the speaker was recognized. "Moranu, Seneschal of the Inner Council!" And there pressed through yielding ranks a Magogean clad even more grandiloquently than any the Solarites had yet seen. A tall, impressive figure who carried himself with an air of supreme and confident authority.

Haughtily he strode to the steps of the dais, there confronted the rebels.

"Now, by the gods," he marveled, "you two must be madmen. Had I not been passing by, for your rebellion at this moment your bones would be pickings for the curs of the streets."

"The curs of this city," ground O'Day savagely, "are not all four-legged -"

"But in me," continued the newcomer, "you find one who admires a fighting spirit in howsoever an unsuspected source it may be found. Aye, and an eye which needs no stark unveiling to detect beauty. Tisru!" He turned to the auctioneer who, glaring malevolently at his attackers, had cringed back onto the dais. "I will bid me this family of rebel serfs. What is your price?"

The auctioneer pleaded greasily, "I can set no price, my lord. This is an open auction with chattels sold to the highest bidder."

"So?" The Seneschal eyed each of the quintet in turn, appreciatively appraising the two girls, nodding his head slowly at the frames of the two young men. Dr. Kang he dismissed with a glance, then turned to Tisru.

"The old one I do not want. For the young ones, as a lot, ten thousand *dwari*. Is there a higher bid?"

TISRU knew there would not be. Not only was the price staggeringly high, but none in this audience dared bid against the Seneschal of the Inner Council.

He shook his head, gasping, "Nay, sire, there is no other bid. For that price take also the old one, with the compliments of Tisru's Mart."

The Moranu nodded to a servant, who negligently tossed a bag to the auctioneer. The lord nodded to his new purchases. "Follow me," he commanded, and led the way from the market place.

An excited hum rose from the crowd to follow their exit.

AS THEY followed their new "owner" it was all the members of the Solarite quintet could do to mask the triumph which threatened to reveal itself on their features. For almost instantly it became clear that they were being led to that very spot they had hoped, but had not known

how to plan, to attain. The hub of Khundru's circle which was the Palace Royal.

As they journeyed along, their superiors mounted on the curiously horse-like creatures which the Magogeans called *batanidi,* themselves, of course, humbly afoot, they could not help but overhear the conversation between Moranu and his companions.

"Ten thousand *dwari!* That was a lot to pay, my Lord Seneschal, for five carcasses," said one.

Moranu chuckled. "It was worth it to see the spittle of greed drool from that hawknosed old scoundrel's lips. Nor is it a bad buy. Of course, the old one . . . I do not know where we can use him—You, aged serf!" he cried to Dr. Kang. "What talents have you, if any?"

Kang scraped servilely and said, "I have a smattering of mechanical lore, O master. Much my former owner taught me about the operation of instruments and machines."

"So? And much you have forgotten by this time, no doubt," grunted Moranu. "Still, I think I know a place where you can be of use. The control tower. You will need no strength there but that sufficient to push buttons."

The control tower! It was with an effort that Gary Lane restrained the cry that surged to his lips. But his eyes leaped to those of the aged doctor, and found there assurance that Kang would well know what to do when *he found himself within the control* tower.

"And the young men?" asked another of the riders.

"For the Games, of course," laughed Moranu. "Where else? Tell me, when have you seen before two slaves with such spirit and courage as these showed? It will be worth many an afternoon of boredom to watch these pit themselves against the fanged *goraru* * or the two-horned *sneri* * in the arena."

"Perhaps," gibed one of the young nobles slyly, "we might even match them against one of the—what were they called? — 'Earthmen', when we capture the creatures."

And all laughed. Gary wondered what form that laughter would take were these carefree young noblemen to learn the truth about their captors.

"And the girls, I suppose, go to—" began still another speaker.

Moranu nodded. "Yes, of course."

"Too bad," murmured one of the younger noblemen regretfully. "The pale one I could use myself."

"The gold fleshed one for me," chuckled another.

"That's right," growled Lark between clenched teeth. "Talk it over. One day I'll make you eat each other's tongues."

"Who could not?" asked Moranu. "But we can afford to be magnanimous this once, and surrender them to our brother. After his long privations he deserves a little relaxation."

THUS they came to the gates of the Palace Royal, a city within a city, a citadel within an armed camp, the innermost fortress of fortified Khundru. And it was here their little group was broken up.

As they passed within the gates the nobles dismounted, surrendering their beasts to grooms, and Moranu designated the direction to which each slave should be taken.

"The old man to the control tower. Tell Vesalu to set him to work. The

**Goraru* and *sneri:* wild beasts of Magog. The first is somewhat similar to the extinct "saber-toothed tiger" of Earth, except that it is equipped with a stony carapace; the second is a gigantic lizard with poisonous mobile horns. *Ed.*

girls to the baths, then to the seraglio of adornment, then to await our brother's pleasure. The men— Well, for the present quarter them with the palace help. Away with you now."

Thus callously were the five members of a family separated. Gary and Lark were placed in the charge of a young lieutenant who led them through a maze of corridors beneath the citadel towards the servants' quarters. As they followed him Gary asked meekly, "Your pardon, sire, but you spoke of 'Erzmun', or creatures of some such name. What are these? Fierce beasts we must meet in the Arena?"

The subaltern chuckled. "Earthmen . . . fierce beasts! That's good! No, slave. They are puny creatures from afar who recently dared attempt to storm our planet. They were driven off by our cruisers and crashed, we believe, on Darkside. But a search is being made for them. If they are found, I promise you rare enjoyment at the Games. For they are stupid, weakling creatures. It should be amusing to watch you carve them to bits during the Games."

"And," asked Gary in simulated eagerness, "our mates—when will we see them again?"

The garrulous young lieutenant grinned. "Oh, by and by, I suppose. When our brother to whom they are being loaned for a little while wearies of them. You see, he has been journeying afar quite a while, and is in need of relaxation. It was he who returned but a day ago to warn us of the invasion of these Earthmen—"

It was fortunate that as he spoke the young subaltern did not happen to look at the faces of his two charges. For at his words, both Lark and Gary stiffened, their eyes met in wild surmise. Then Gary spoke for both.

"And—and the name of this noble *kraedar?*" he asked.

The nobleman laughed curtly. "I do not see that is concerns you, serf. But there is no harm in telling you whose august presence your mate will be permitted to attend. It is our brother, lately returned from tiny Gog. The great and noble *kraeder* Borisu."

CHAPTER XIX

Deadlock

"BORISU!"

There is a limit to which human impassivity can be constrained. Gary Lane had now surpassed his ability to play the ignoramus. The name burst from his lips with explosive force. "Borisu!"

O'Day echoed the cry. "Borisu! But my God, Gary, that means—"

In his dismay Lark spoke in English. Their captor had been startled enough at Gary's cry, but upon hearing speech in a foreign tongue from the lips of a supposedly uncultured slave, his eyes opened wide in astonishment. He demanded, "What *is* this? Whence came you twain that you speak a language I do not know?"

And his hand reached for the ray gun at his belt. But it never got there. For Lark O'Day called signals in a language the Magogean could never possibly understand. He cried sharply:

"All right, Gary, punt formation . . . One, two . . . *Hep!*"

And simultaneously the two Earthmen converged on their guard, one high, one low. Gary, taking his cue from Lark's quarterbacking, made no effort to wrest the weapon from the Magogean's grasp, but kicked straight and true at the young lieutenant's wrist. The gun flew high, and by the time it clattered to the paving Lark had smashed the young *kraedar* to the

ground and battered him into unconscious submission.

Gary tugged at his friend's shoulder. "OQ, Lark, that'll do. You don't have to pound him into hamburger."

"Not hamburger," rasped O'Day, withdrawing reluctantly, "just a reasonable facsimile thereof. He's the louse who said he wouldn't mind making a play for Penny himself!"

Gary said, "Never mind that now. Somebody's going to make worse than a play for Penny if she and Nora are ever taken before Borisu. You know what that means, don't you?"

Lark nodded grimly. "Taps for the bunch of us. He's the one person in Khundru who could recognize any of us beneath our disguises. And by the time the gals get tidied up— Well, what'll we do?"

Gary said, "I've got an idea. You're about that guy's build—" He nodded toward the prostrate figure. "Scramble into his uniform, quick. Before somebody happens along this way. And while you're dressing, I'll roll *him* into *your* rags."

"OQ."

The shift was made. Finally a "slave" lay prone in the middle of the corridor floor, and a handsome young *kraedar* of the Magogean guard towered above him.

"OQ," repeated Lark then. "What next, director?"

"You must have something on you," figured Gary, "with which to call help. Find it."

Lark pawed the unfamiliar paraphernalia with which his uniform was draped, finally discovered a small whistle. He looked at it distastefully. "You mean I have to put this in my mouth and blow it?"

"Yes. Go ahead."

"I'll probably get hydrophobia," grunted Lark . . . but obeyed.

THE whistle brought immediate results. Footsteps clattered through the tunneled corridor, and shortly questions were beings hurled at the false guard officer by an excited handful of Magogean soldiery.

"I was taking these two slaves to their quarters," explained Lark. "That one is a trouble maker. He turned against me. I was forced to strike him down. Cart him away. Throw him in the dungeon. You—" He picked out a likely looking prospect Gary's size —"come with me while I take this other where he must go."

So, as the band of soldiers lugged their unconscious *kraedar* into durance vile, Lark and a soldier escorted Gary to the first conveniently dark passageway. From this came shortly a thud, as of some blunt instrument striking a heavy object . . . and a few moments later two warriors clad in the habiliment of the Magogean armed forces were speeding upward through the labyrinthine corridors of the Palace Royal toward those chambers to which the girls had been taken.

They had ascended three levels and reached the point in the Palace Royal where the corridors were beginning to look less like passageways of a fortress and more like the aisles and avenues of a residential area when there burst about their ears a cascade of sounds at once bewildering and startling. It was the clamor of a myriad of ringing bells, sharp warning tocsins sounding an alarum of some sort. Whence it came, at first they could not tell. Searching for an explanation, their eyes discovered a series of grilled openings periodically spaced about the wainscoting of the chambers through which they hurried.

Gary guessed, "A general communicating system of some sort, Lark. But what does it mean? Do you think

Borisu has seen the girls, discovered—"

"He's hardly had time," demurred Lark. "But *something's* up—no doubt about that. Ah! Here comes someone. Perhaps now—" He lifted his voice in a shout as a soldier clad like Gary raced into the corridor. "Hello there, you!"

The Magogean warrior identified the rank of his accoster and halted, saluting. "Yes, *kraedar?* Foot soldier Norad, preparing to take post, sir, in accordance with emergency alarm instructions."

"Very good," approved Lark. "What is the nature of the emergency? Have you any idea?"

THE private nodded. "Yes, sir. An official telecast was just issued over the diaphragm. It is a Gogean attack."

"A Gogean—?"

"Well, not exactly an attack, sir . . . yet. Because the force barrier prevents their entering Khundru. But a mighty army of the cursed Darksiders has been spotted by our observation posts. They number in the tens of thousands. They have been seen at every gate. Apparently their army has completely encircled Khundru."

"Good! said Lark. "I mean . . . er . . . very good, soldier. Report to your post as ordered. Oh, what *is* your post?"

"Main control tower, sir. The ultrawave cannon."

"Indeed?" Lark's eyes lighted sharply. "And where lies this tower?"

"Why, at the lowest level, of course, sir—" began the *tramir* . . . then stopped abruptly, suspicion darkening his gaze. His voice changed tone and one hand crept furtively toward the sidearm holstered at his side. "But—but how is it that *you* a *kraedar*, do not know—"

"That," said Lark softly, "is a question you must ask your ancestors, *tramir.*" And his hand, too, streaked to his belt. Before the startled warrior could draw, a shaft of orange lightning seared the life from his body. It was a charred carcass when it hit the floor.

Gary said regretfully, "Poor devil! He was only doing his duty as he saw it."

"War," reminded Lark, "is war. The only good enemy is a *dead* enemy. We know where we stand now. The Gogeans are on deck as they promised to be, and we know where the control tower is. Now if we can just lift that barrier shield—"

"We must get the girls first," reminded Gary. "I think we're almost there. Come on."

He was right. They sped through a few more chambers, then emerged into an apartment more elaborately furnished than any seen so far. Into this they shouldered rudely. At sight of them a gross figure, a mountainous mass of jelly parodying Magogean manhood, came mincing up to them on swollen feet emitting shrill little bleats of horror and dismay.

"Kraeder! Tramir! A thousand pardons, but these are the *women's* quarters. You have no right here."

"Beat it, capon!" grunted Lark, and with a twist of his foot sent the piping eunuch sprawling. He lifted his voice. "Penny! Nora! Where are you?"

At his cry a flurry sounded from an adjacent chamber as curtains flung apart and Penny and Nora ran to greet them. They still wore the peasant rags in which they had been sold.

Penny cried, "Lark! We knew you'd find us! We knew you would come!"

And Nora echoed, "We were waiting. But Gary, what does the alarm mean? When they heard it, those who were attending us fled. All the women in Khundru have taken shelter—"

"And every man has gone to his post," explained Gary. "They've spotted the Gogean army outside the city. We must work fast before they can turn their armaments on our unprotected friends. Come on."

"Yes, but where?"

"To the control tower. It's the key to the whole situation."

THIS time their flight through the avenues of the Palace Royal was not so unimpeded as before. The entire city had sprung to a state of alert. As they left the residential quarters and moved once more into that portion of the citadel which was its walled fortress, they passed on several occasions small bodies of troops hurrying toward designated battle posts. As they passed gun stations they saw artillery crews huddled behind flame guns and rotors which, through slits in the palace wall, commanded wide areas of the city before and below. Twice their passage was challenged. Once by a patrol sentry whom Lark easily satisfied.

"*Kraedar* Gorilu and one attendant on special duty. Taking these two females to the dungeons for safekeeping."

"Very good, sir," said the sentry, and permitted them to pass.

But the second challenge was not so easily averted. This came from a *kraedar* of equal rank to him as whom Lark masqueraded. This noble made the fatal error of attempting to question the fugitives without first calling assistance.

"*Kraedar* Gorilu?" he repeated. "I know no such lord. And your trappings designate you as one of the *inner* Palace Guard. Why, then, are you fleeing in *this* direction? And why are you drawing that gun, *kraedar?*"

"Because," answered Lark simply, "you ask too damn many questions, and we haven't got time to answer them. Sorry, pal!"

And they left the inquisitive *kraedar* behind, inquisitive and suspicious no longer . . .

But finally they went again to that section of the Palace Royal which they knew to be its nerve center. From the deepening throb of many motors, and by the slowly increasing static crackling of dynamos endlessly turning, they knew when they had reached their objective.

But there was something missing. Something which puzzled and worried Gary Lane. So much so that as they approached the central control tower he drew his companions to a halt in the shadow of a deserted lookout niche.

"Wait a minute," he warned. "Let's stop and look this situation over. There's something wrong here."

"Wrong" repeated Lark. "What's wrong about it? Everything looks OQ to me. We got *this* far without trouble —well, much, that is. And judging by appearances, that doorway—" He nodded—"opens to the control tower proper. So far as *I* can see there's not a damn soul around to stop us."

"That's just it! This is the nerve center of the entire Magogean defense system. Look . . . look below, there!" Gary gestured to the window slit by which they were huddled. Through it could be seen the lower court of the Palace Royal and several streets of Khundru beyond. All had been emptied of vehicular traffic and were aswarm fighting men prepared to repel any invasion attempt. "They've got the Palace guarded to the hilt . . . but the main control tower doesn't have a man around it!"

Lark chuckled cheerfully. "Just like the Magogeans. Dr. Kang's been saying all along they don't have good sense. So much the better for us. Come

on . . . let's get going. We've got to open that barrier.

"Well, all right," agreed Gary. "But be careful. I don't like this."

SO THEY crossed the last open space between their present post and the partially isolated control tower, a domed minaret of a building constructed within the palace walls but remote from other portions of the edifice.

Serving to strengthen Gary's suspicions, the door of this tower was not even locked, but yielded readily to their pressure.

Within this dome the thrumming drone of motors sounded more insistent than ever. It throbbed in their ears, their brains, their veins, like the slow and deadly dripping of a creeping poison. It was an audible magnet which drew them to the innermost chamber.

And here again—stunningly!—was the door unlocked! Its latch clicked at Gary's pressure. The heavy door swung slowly open, and a bright room yawned before them; a tremendous, vaulted chamber in which were mounted gigantic instruments of almost unguessable size and power.

The control panels governing these instruments were set on high walls, but as they entered Gary saw that a single figure, garbed in smock and apron of laboratory white, head encased in a heavy visionplated shield similar to that used by welders, sufficed to keep all this intricate paraphernalia in working order. This single technician was darting back and forth before his control banks, here touching a vernier, there readjusting a rheostat, elsewhere depressing a stud which performed some unfathomable duty.

At sight of this single lab man, O'Day's exultation could no longer be restrained. With a gleeful cry he charged into the room, handgun drawn and menacing. His voice cried in swift command. "All right, you at the controls there! Turn around, and put your hands up—*Up,* I said!"

And then—too many things happened at once! There came a sudden gasp from Penny's lips.

"Lark! It's —"

And a frightened scream from Nora Powell. Metal clanged noisily as the great door clanged behind the four invaders. A bolt thick as a man's arm jarred into place. And even as the four whirled to comprehend this phenomenon, an all too horribly familiar voice repeated O'Day's order.

"Yes, my foolish friends hands up and drop your weapons to the floor! What delayed you? I have been waiting for you quite some time."

And from behind the concealment of the now-closed door, flanked by a detail of Magogean warriors, armed to the teeth and ready for instant action, stepped Borisu!

"A TRAP!" cried Gary Lane. "A trap!"

Borisu smiled easily. "Yes, my dear young doctor. You did not believe that we of Magog were stupid enough to purposely leave unprotected our control tower? Particularly when we knew you had contrived entry to our capital city?"

Nora Powell cried, "Then you *knew* we were in Khundru?"

"Let me not assume undue credit," smirked Borisu in mock modesty. "Let us say, rather, I *guessed* it was you the moment I learned one of our younger *kraedar* had been attacked, and his uniform exchanged for the garment of a serf.

"When upon further investigation it was learned that this self-same 'serf,' in company with four of his pretended

'family,' had created a scene of violence at the slave market, it was not hard to guess that such impetuous blunderers must be part of the late comradeship of the *Liberty*."

His manner changed abruptly, his oily smile disappeared and tiny needles of flame darted from his eyes. "But enough of this," he rasped. "There are but four of you here. Where is the fifth? Who was he? Muldoon? Or that young traitor patrolman, Captain Warren?"

Gary stared at him in frank astonishment. This did not make sense. Was it not to this control tower that Dr Kang had been sent? If Borisu and his henchmen had not already met and apprehended the Martian savant here, then where—?

A sudden thought struck him, one so staggering that it was only with an effort that he kept his eyes from turning in a revelatory direction. He struggled to keep his voice under control. He asked levelly, "And suppose I refuse to tell you, Borisu?"

"It will not greatly matter," snarled the Magogean. "But I warn you, it will be better if you *do* tell. Speak, now! Who was the fifth member of your party?"

"The fifth member," said Gary slowly, stalling for what he had reason to believe was precious time, "was—"

Then came an interruption. The hooded technician at the control board turned suddenly, spluttering swift, fearful words at the *kraedar* and his guards.

"My lords! Your attention quickly! Something has gone wrong with the force barrier!"

"Wrong?" echoed Borisu, turning swiftly to the man. "But nothing *can* go wrong. What do you mean?"

"It's weakening . . . failing . . . Come, see for yourself."

The technician pointed with trembling fingers at an alarm signal high upon the control banks; a light now pulsating in fitful ruby flares. Borisu spat a stream of angry curses, turned and waddled hastily across the amphitheatre to the engineer's side.

"Where is the fault?" he demanded wildly. "Hurry, man! Bestir yourself! Don't stand there like a stricken schoolgirl. Do something!"

And:

"Very well, Borisu!" cried the engineer, his voice changing suddenly. "I *will* do something!"

His hand leaped out and tore the pistol from the *kraedar's* grasp, in one split second completely changing the situation.

"Down on your face, and keep your arms outstretched above your head! Tell your men to throw their weapons away."

CHAPTER XX

The Last Treachery

"KANG!" The name burst from Lark O'Day's lips.

"Quickly!" crisped the Martian scientist. "Pick up their guns! Daughter—" As Lark and Gary and Nora scrambled to the task of collecting the astonished Magogean's fallen weapons, Kang directed his attention to Penny —"you will find my former slave apparel in that cupboard. Tear it to strips and bind our enemy."

"Bind him?" demanded Lark. "Why waste good rags on a scoundrel like that? I know a better way to take care of—"

"No!" commanded Dr. Kang. "We will need him to transmit our peace terms to the Magogeans when our allies have flooded the city."

"And these others?"

Lang said, "The storage chamber over

there. Throw them into it and lock the door. There is no reason to occasion useless bloodshed. These soldiers have committed no crime but that of obeying orders."

"Okay," said Lark. "You're running the show."

He herded together the now helpless and sadly bewildered half dozen Magogean guards, and thrust them into the cubicle pointed out by the scientist. When the door was secured behind them—

"But how did you manage to get control of this chamber?" asked Nora Powell.

Kang shrugged. "It was very simple. There was but one man watching these panels when I was brought here: the technician whose garments I wear. He expected no trouble from an elderly slave. And since we two were alone—well, it seemed an elementary precaution to don his clothes before I began the necessary operations."

"And the barrier?" inquired Gary eagerly. "You have lifted it yet?"

"Not yet. I had first to make a few alterations in the Magogean machinery. I wanted to make sure a power failure would not cause the barrier to fall before all our allies had entered. My work is now complete. And so—"

Kang turned to the panels. His hands tugged at a single gigantic switch.

No light glowed. There came no change in the humming sound that permeated the control room. The adventurers looked at Kang and at each other anxiously. Penny spoke for all when she asked, "You are sure, O my father, that the barrier is open?"

Kang said, "See for yourself." And he pressed a stud which lighted a vision screen before them.

What they saw left little doubt as to the effectiveness of Kang's accomplishment. For the screen reflected one segment of the imperial city's surrounding wall, a location which had been a gate in Khundru's defenses. But now that sentry post existed no more. It was a mass of broken kindling trampled under the rushing feet of hordes of Gogeans who had burst from their place of ambush to storm the city.

"THIS is *one* spot, Kang," cried Gary excitedly. "And elsewhere?"

"Elsewhere," repeated Kang, "it is the same."

He spun the dial which moved the telelens of the vision screen at a 360° arc about Khundru. Everywhere they looked it was the same. Tsalnor of Gog had placed his troops cunningly, entirely encircling the city. To the north and south, divisions had crossed the chasmed mounts to take their posts outside the barrier. Now in two wedges they were storming Khundru's primary defense line toward the central citadel.

The marine detail, which had completely bipassed the capital to reach the shoreline, was now swarming up yet another avenue of Khundru from the docks and wharves which they had seized. These three formed diversionary forces, hammering at the flanks and rear of the Magogeans, who were forced to concentrate their main defense on the eastern front; that which faced the Twilight Zone out of which the *bulk* of the Gogean army was pouring.

So swift was the movement, so hectic the opening phases of that battle, that it was only in fitful glimpses one could comprehend the magnitude of what was going on. Afterward Gary Lane recalled having briefly glimpsed Tsalnor himself riding at the fore of a cavalry detail hewing its way through broken ranks of fleeing Magogeans up to the

citadel proper. In another sector, whether yards or miles away it was hard to tell, he saw for an instant Flick Muldoon, wild-eyed and jubilant, in command of a foray squad busily opening a new breach in the fading Magogean defenses. Little Herby Hawkins fought beside Flick, and though no sound transmitted itself over the vision plate, the watchers could almost hear the voice of the little cockney raised in joyful battle cry.

"Blimey, wot fun, eh? Wot bleedin' fun!"

How long the battle raged was hard to tell. Certainly long enough to place on pins and needles Gary and Lark, both of whom, as they watched the scenes depicted about them, chafed with impatience to fight at their comrades' sides. But this Dr. Kang sternly forbade, and gave good reason.

"No, not yet! As we have seen, it should be easy for our allies to take the *outer* city. The real difficulty will come when they try to storm the Palace Royal. We must wait until that moment, then take from within."

"From within?" echoed Lark. "But how?"

"This is how we will use *him*," Kang nodded toward the trussed Borisu who lay smouldering with impotent rage upon the floor. "This chamber is the heart of all Magogean apparatus; not only their barrier shield and vision screens but their intercommunicating system as well. When the proper moment comes we shall visiplate him throughout the entire palace, and make him order his countrymen to lay down their arms."

"*Order* them, yes," grunted Lark. "But will they *do* it? That's another question."

"[illegible]," continued Kang. "They will do it. They are not like *our* people. They are a race trained through long ages to obedience. But if they don't—"

"If they don't—?"

"Then," continued Kang soberly, "having given them their chance, we shall destroy them ruthlessly and without mercy."

ALL present knew what he meant. For that, too, was part of the plan which had been arranged in conference with the Gogeans. Noticeably absent from those who now stormed the city was Captain Hugh Warren and his crew of Space Patrolmen. They, Gary knew, were even now waiting aboard the *Liberty* with motors idling, ready to lift at an instant's notice to soar over the capital.

With their own fleet grounded, if the Magogeans would not listen to reason the *Liberty's* guns would bathe Khundru in such a flood of fury and destruction as had never before been witnessed!

Thus it was with a sense of increasing triumph the Solarites watched the battle for Khundru turning more and ever more in favor of the invaders. More swiftly with each passing moment the defenders gave way, retreating to the shelter of their palace walls. Walls which, though they did not know it, were a fateful trap for themselves.

And at last, save for mopping-up operations carried on by small bands of Gogeans in outlying sections of the city, the first stage of the battle was ended. All surviving soldiers of Magog had taken refuge in the Palace Royal, there to withstand siege.

And siege, they now discovered to their horror, it most certainly was! For when, assailed by the weapons of their enemies, they attempted to retaliate by loosing their own destructive ray cannon upon the attackers, their artillerymen learned that the cannon were not in operation! These were out, like the

smaller hand weapons, self-charging, but were powered by direct cable from the control tower. And the control tower was in the hands of the adversaries!

It was then, with the battle stalled briefly at a deadlock, Dr. Kang nodded. "Now," he said, "is our time. Bring him here."

Gary hauled Borisu to his feet, prodded the bleating Magogean forward. Kang addressed him bluntly.

"You have heard what you must do?"

"Never!" cried Borisu, blustering defiance. "Never will I betray my people!"

"It is written," said Kang quietly, "'Only the fool rejects the inevitable.' You are no fool, Borisu. Will you proclaim an armistice? Or for stubborn pride will you witness the destruction of your empire?"

Borisu blubbered, "Better to go down fighting than abjectly. If I bid my people lay down their arms, your hordes will sweep in and destroy them."

"That," Kang assured him, "they will *not* do. In conference we have already discussed this with the Gogeans. Much have our two races to hate yours for, Borisu. Theirs for years of life-in-death in the darkling wastes of Magog; ours for impelling upon us centuries of premature death and a dwindling doom.

"Even so, we will not sow the seeds of new conflict in the peace of the old. Lay down your arms in peaceful surrender and I offer you the pledge of two worlds that about the conference table shall be reasoned the merits of a new and lasting peace for all concerned."

"And if I do not?" demanded Borisu.

"Then," Kang promised him, "you shall surely die. And as for your city—" He paused and gestured toward the visionplate. Words were needless in the face of that which might there now be seen. The silver tube of the *Liberty*, shimmering faintly in the atmosphere of Magog, surrounded with its impenetrable force-shield, flying supremely aloft above the capital city, coming to sedate rest directly over the citadel. "There is your answer, Borisu. The decision is yours. There is little time in which to make it. Speak, or—"

AND Borisu capitulated. With a grinding cry, he reached for the diaphragm Kang offered him. The Martian doctor depressed a series of studs, and instantaneously, in a thousand chambers and corridors scattered throughout the whole of the Palace Royal, there appeared on vision plates before the startled eyes of all the embattled Magogeans an image of him who was a *kraedur* supreme in the Inner Council of Magog. And they heard his cracked voice crying out its message.

"Brothers of Magog, lay down your arms! About our city are entrenched our Gogean foes. Above our citadel hovers a vessel which, if we do not surrender, will blast us all to atoms. Your guns, as you have learned, are useless. The foe has overthrown our might. Surrender!"

The vision plate went dead. Throughout the whole of the Palace Royal a murmuring arose. Men lifted from concealment, and doors once barred were opened as a race trained to obedience followed the instructions of a superior. The battle of Magog was ended.

DAYS before, hours before, even short minutes ago, Gary Lane had hated this little man who stood beside him. Had wished nothing more than an opportunity to meet him face to face, and crush the life from his treach-

crown little body. But a victor can afford to be magnanimous. And now, in this moment of triumph, Gary found it in his heart to feel commiseration for men who, though he fought to distorted ends, had seen his empire fall before a bigger, cleverer force.

He turned to Borisu, and in a quiet voice he said, "Well done, Borisu. You have my pledge, with that of Dr. Kang, that you shall not regret this move. There will be no vindictiveness in the peace terms we offer. Only justice and equality for all. No more warring between our worlds."

And Borisu said quietly, "Yes, it is over. It is done. It is finished . . . and I have lost. I will not say I am not sorry, but we must bow to the inevitable. And now, Dr. Kang, my bonds? I am free to—"

Kang said simply, "Yes, Borisu, you are free." And he moved close to the little man to cut the strips of cloth which bound his wrists. A knife flashed briefly, and then:

"Look out!" screamed Penny. "Father, look out! He—"

Her words were drowned in a roar of rage as Gary, stirring belatedly, was aware of the last mad vengeance of the crazed Borisu. The instant his bonds had been stricken the little man's hands darted like serpents, turning the knife in Kang's hand and thrusting forward with all his strength.

Kang grunted once heavily, then slumped forward, hands clutching futilely at a blade which clung half buried in his side. From between his clawing fingers surged ugly rivulets of crimson.

Now was this all. In the same flashing movement Borisu snapped a ray pistol from the falling doctor's belt, turned the lethal muzzle upon those who stood toward him. His mad voice rose in harsh command.

"Back! Back, all of you or I will slay you down like dogs. Victory, eh?" His laughter cackled shrilly. "Your moment of triumph? We shall see?"

His tiny eyes darting from one to another of them to detect any slightest motion, he backed all the way across the room to where stood the most ponderous of all the machines in that control tower. A gigantic tube surrounded by gleaming coils and iridescent busbars. A huge, revolving drum of an instrument whose purpose Gary did not know.

Borisu left him not long in doubt. Still mouthing the taunts and curses of a half-demented man, he clambered to a raised platform on this machine, loosed a panel, and dug his free hand somewhere deep into its entrails.

"So," he mocked, "you have won victory? But out of your victory you shall drink only the dregs of deepest defeat! You and all your cursed universe!"

Kang, who had lain as one dead where he had been stricken, now stirred and lifted his head dazedly. His eyes, turning slowly, s o u g h t and found Borisu, then widened in horror. He tried to speak, but his voice was a thick mumble; his words were punctuated by tiny streamers of blood that leaked from the corners of his mouth.

"That . . . machine! Don't . . . let him . . . touch it!"

Borisu's quick daze darted to the dying man. He laughed stridently. "Then you are not dead yet, my good doctor? You barbarians take a lot of killing. Well, I shall not finish the job. I much prefer that you should live long enough to watch, with your comrades, the vengeance of Borisu."

HE tugged suddenly, and something came loose in his hands. Wires. Connecting wires of some sort. Instantly the low thrum which had sounded through the control chamber

began to heighten. The tone crept higher up the tonic scale. Something within the machine Borisu had damaged was beginning to move faster and faster.

"You dog!" grated Lark O'Day "You filthy, conniving scoundrel! I'm coming after you. I'll break your neck with my bare hands if it's the last thing I—"

"Back, corsair!" snarled Borisu. "I assure you—take another step forward and it *will* be the last thing you ever do. You see this object I hold in my hand?" He dangled a bit of metal before them tauntingly. "You are space trained men. Do you recognize it? It is a governor. Ah, yes! A small governor controlling the speed of the instrument upon whose platform I now stand.

"Until this moment the machine has always operated at an inexorable and never-changing rate. But no more. From this moment henceforth the machine will gain speed . . . and speed . . . and speed —" His voice broke in a shrill cackle, "And you know what *that* means, my friends?"

O'Day said stoutly, "I know it means your death, Borisu. Here and now, or elsewhere and later, but surely your death."

"Perhaps so," laughed the diminutive *kraedar*. "But more than that . . . it means the swift and final death of your universe. For this on which I stand, gentlemen, is the instrument we of Magog have for years been playing upon your system. The ultrawave cannon! And now I have speeded its action to such an extent that the length of your world's existence may be measured no longer in weeks or months—*but in hours!*"

A pang of fear drove deep into Gary's heart. Mad the little man might be, but staring into his red-rimmed eyes Gary knew he spoke the truth. The ultrawave cannon, speeded a thousandfold, was hurling its destruction ungoverned upon a universe which even now was dwindling to the breaking point!

This then was the end of their adventure. It did not matter that they had come afar and conquered many hazards. Here at the last moment, with triumph within their grasp, was to be torn from them all for which they had fought and l a b o r e d and—his eyes sought Dr. Kang and died.

What if their mission were a success and Magog's power overthrown, the children of God returned once more to look upon the sun? The children of Earth within a matter of hours would be obliterated in what to them would be a horrendous holocaust of flame, but would to observers from this far vastness seem no more than the flickering of a momentary candle in lost distances.

He cried in a choked voice, "Borisu! Stop! For God's sake—"

BUT his plea dangled unfinished. For at that moment a miracle transpired before his eyes. Dr. Kang, who should ere now have been dead, with some supernal effort had not only raised his head . . . but was slowly, laboriously, rising to his feet. He stood there for a moment, swaying dangerously, his knees half buckled beneath him, his eyes already glazed. And again his lips parted in that thick and blood-spumed mumble.

"Borisu, turn off . . . that . . . gun!"

"The doctor," mocked Borisu, "is hardy! The doctor is courageous. But the doctor is *also* a fool. Stop this gun? Never! Not until your world has met the oblivion it deserves. Not until—*Wait! Stand back there you fool!*

Stand back! Aaah!"

The raygun in his hand gushed a livid flame as Kang, tightening his worn, exhausted body for one final effort, pitched forward convulsively. The random shot missed the old man, and Borisu screamed a cry like that of a stricken animal, as in a last futile moment he realized Kang's intention.

Kang, already living on borrowed time, was yet the scientist. He alone, of all in the room, had seen what could and *must* be done. He alone, of all those who stood helplessly trapped, was close enough to do it.

Three strides he stumbled forward . . . then Borisu's second blast caught him squarely in the chest. If he should have been dead before, he was *surely* so now. But it did not matter. Understanding had come too late to the madman of Magog. For sheer impetus carried Kang's body forward to that which Kang had planned. His body plunged full length and sprawling upon the gleaming busbars of the wave cannon. There burst from Borisu's lips a last and frightful scream. The atmosphere crackled. For a moment the biting odor of ozone was horribly mingled with the channel stench of searing flesh.

"Down!" roared Gary. *"Down on the floor, for God's sake! Short circuit—!"*

As one, the watching four fell flat on their faces just as the gigantic machine before them, quivering and trembling to its very roots, rocked itself from its moorings . . . and in a roaring fountain of flame exploded into a million fragments!

CHAPTER XXI

"Journey's End . . ."

"SO," SAID Tsalnor regretfully, "you will not change your mind? You will not stay?"

Gary Lane shook his head. "No, Tsalnor. Someday we may return. But now our duty is to go to our own system, there tell them what we have here learned."

Tsalnor nodded. "Yes, man uff Earth, I suppose that is best. But you will send others uff your people to see us? You will teach us, as you promised, your method uff travel? That there may be friendship and amity between the people uff our worlds?"

"We will," pledged Gary. "Dr. Bryant has said that now the ultrawave cannon is destroyed the solar universe will not only stop its dwindling but will, indeed, begin to return to the true and greater universe from which it was exiled.

"But before this happens our races will have forged bonds of friendship so close that when Sol returns to take its place amongst its sister stars there need never again be war between our worlds."

Muldoon said, "And you, Tsalnor, you've got an even more important job than we have. Keeping the Magogeans under control. You've got to see to it that they never try to build another one of those cannon."

Tsalnor said softly, "We shall be careful. But I think we need never again fear the construction uff such a weapon. The *kraedars* of Magog have been overthrown. It was never the common people who conspired against us. When we haff taught them the benefits of freedom and democracy, they too shall take their place in a new and better universe."

A bell clanged in the control turret of the *Liberty*, and Captain Hugh Warren, seated in the pilot's swivel, turned to his friends. "Well, I'm afraid that's the signal. All ashore that's going ashore."

"Short circuit!" roared Gary. "For God's sake . . . !"

Tsalnor and his retinue left. A few minutes later the *Liberty* was once again tenanted only by those making the return trip to the solar universe. To an Earth free now forever of the dangers which had threatened it.

Dr. Bryant sighed. "And so," he said, "begins the long journey home."

"Only," grinned Lark O'Day, "it won't be such a long journey. We've got the Jovians' quadridimensional co-ordinates for a space warp that will drop us a couple of hours from Earth. All set over here, Hugh."

"Right!" Warren called from his banks. "All right, folks, here we go!" And he depressed the green stud.

Lark rose. "Leaving me," he drawled, "with nothing to do for the next couple of hours. Unless," he spoke to Pen-N'hi hopefully, "unless maybe you'd like to take a little stroll out on the observation deck?"

"Yeah," chuckled Flick, "and watch the fourth dimension whizzing by? That ought to be a lot of fun, Miss Penny."

"It all depends," chuckled Warren, "on who you're watching it with. I was just about to suggest something of the same sort. How about it, Nora? Suppose you and I—"

BUT Gary interrupted him. This was a new and different Gary Lane from the curt young man who, for months past, had been too preoccupied with a life-and-death struggle to pay a proper amount of attention to matters which were a part of his personal and private life.

Gary said, "Oh, no you don't, Hugh! Not so fast. I got here first." He reached out and folded the arm of Nora Powell into his own. He said, "Nora and I have a few matters to discuss. *Business* matters."

The girl looked at him astonished. "B-business, Gary? At a time like this —*business?*"

Gary said seriously, "Very important business that has been delayed altogether too long. A—a matter of a merger, you might say."

Nora sighed. Whether it was with relief, or whether there was in that sigh a hint of acquiesence to follow was hard to tell. But she smiled and nodded. And:

"In that case," she said, "I have no choice. I have to do what my boss tells me, Hugh. I'll go with you, Gary."

And they left the bridge.

Muldoon snickered. "Business!" he snorted. "Business my hat! *Biological* business, if you ask me!"

And Warren shook his head dejectedly. "Oh, well," he shrugged. "What the hell! *Somebody's* got to stick around to drive the ship . . ."

(Continued from page 6)

Rush On Callisto" which shouldn't mislead you . . . it's a gold rush, all right, but not like other gold rushes! Odd tales all, and you'll enjoy 'em.

WITH "Periscope Prey" we were stuck. We didn't know if it was science fiction or fantasy. It has a gadget in it—certainly a submarine is a gadget. But it also has a ghost ship in it, and so we decided, since it was such a grand little yarn, we'd put it in AMAZING STORIES. It's done by David Wright O'Brien, and he sure thought of a honey of an idea when he had a Nazi sub try to torpedo a ship that didn't exist! Read it for yourself, and see what happened!

LEE FRANCIS, newest addition to our writers' club, does "Daughter of Destiny". Once again a writer takes an old theme, that of the "only" woman on Earth, and does it up brown.

A FEW words about the art work in this issue. Naturally, a Fuqua cover for a Bond story is a natural, especially when it's a space scene.

This is a space scene that ought to please you immensely. It looks swell to us.

H. W. McCauley took Lee Francis' story and dished out with some mighty lovely stuff for interior illustrations—and for good measure, threw in two of 'em for one novelet, which is an extra bonus. The Mac Girl's as good in black and white, as in color!

OUR illustration on good enamel stock for this month's offering to you readers (at 15c) is on page 124. It illustrates "Valley of the Black Sun" and it's by Magarian. Only we have a point to make concerning these illustrations. We must wait for the original plate to come back from the printer before we can make the special reproductions, and we therefore must warn you that if there seems to be a delay in delivery, don't get anxious about it. Several of you, ordering previous proofs, have become concerned and written us. This forces us to answer, explaining the situation, and doesn't do much good besides wasting our time. So when you order, don't worry. Your copy will come to you as fast as the wheels will work!

THAT novel "Warrior of the Dawn" by Howard Browne, which appeared serially in AMAZING STORIES, will appear in book form in March. Many of our readers have asked us to inform them of this fact, so there you are. You can dash out and get a copy for your library. The story was tremendously successful in its initial publication and well worth preserving for future reading by buying the book

HOW would you like to have a couple of rotten eggs for breakfast? Of course you would turn up your nose at the idea, but if you live on a farm that has a few pigs around, feed the eggs to them and they'll enjoy it. At least that is what J. P. Willman, C. M McCay, O N. Salmon, and J. L. Krider found from their experiment in feeding two pigs with eggs that had failed to hatch while being incubated. The two pigs ate a mixture of ground corn and the unhatched eggs and gained almost a pound a day

AND now comes our "it's the bunk" department:

"I can tell a man's character just by looking at him," is a common expression. The shape of the chin, the texture of the hair, the contour of the face, and the "sparkle" of the eyes are all supposed to be factors in judging men. Thousands of employment offices ask for photographs when people send in their applications for work. What have scientific methods established in this field?

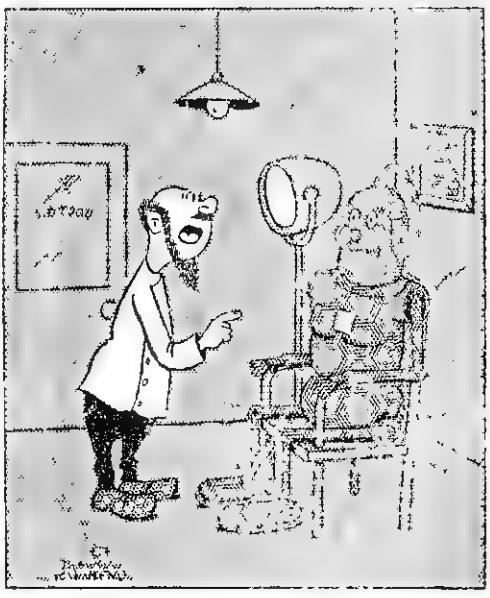
Photographs of a group of men who had been successful and a group who had been unsuccessful in their occupations were presented to several "judges of human character." These "judges" were told to pick those men that were successful and what vocation each had followed.

These men failed completely in their judgments! They failed in choosing the successful faces, and they failed in stating what occupation each "face" followed. The general tendency of the judging group was to rate more "successfuls" than "unsuccessfuls." After presentation of the results of the experiment, all further agreed that it is practically impossible to predict what vocation a college senior should follow merely by looking at his photograph, nor is it possible to judge what vocation a man is pursuing who graduated from college several years before the picture was taken.

Asked the basis for their judgments, the answers were: "general impression", "hunch", "similarity to someone I know", and mention of specific facial features

MAMMOTH DETECTIVE, our sister magazine, has seventeen stories in the big April issue on sale February 16. The issue contains such names as William Merriam Rouse, William P. McGivern, Robert Leslie Bellem, Nelson S. Bond, W. T. Ballard, H. C. Thomas, Stuart Friedman, Richard Dermody, and many others It's really a swell bunch of stories. 304 pages for a quarter!

WITH that observation we step down from the telescope for this month and wend our weary way toward another issue. Not *too* weary, because we have a bunch of promising mss. to read! *Rap.*



"There's nothing wrong with you that a good can of oil won't fix!"

JUGGERNAUT JONES ...WARRIOR

By A. R. McKENZIE

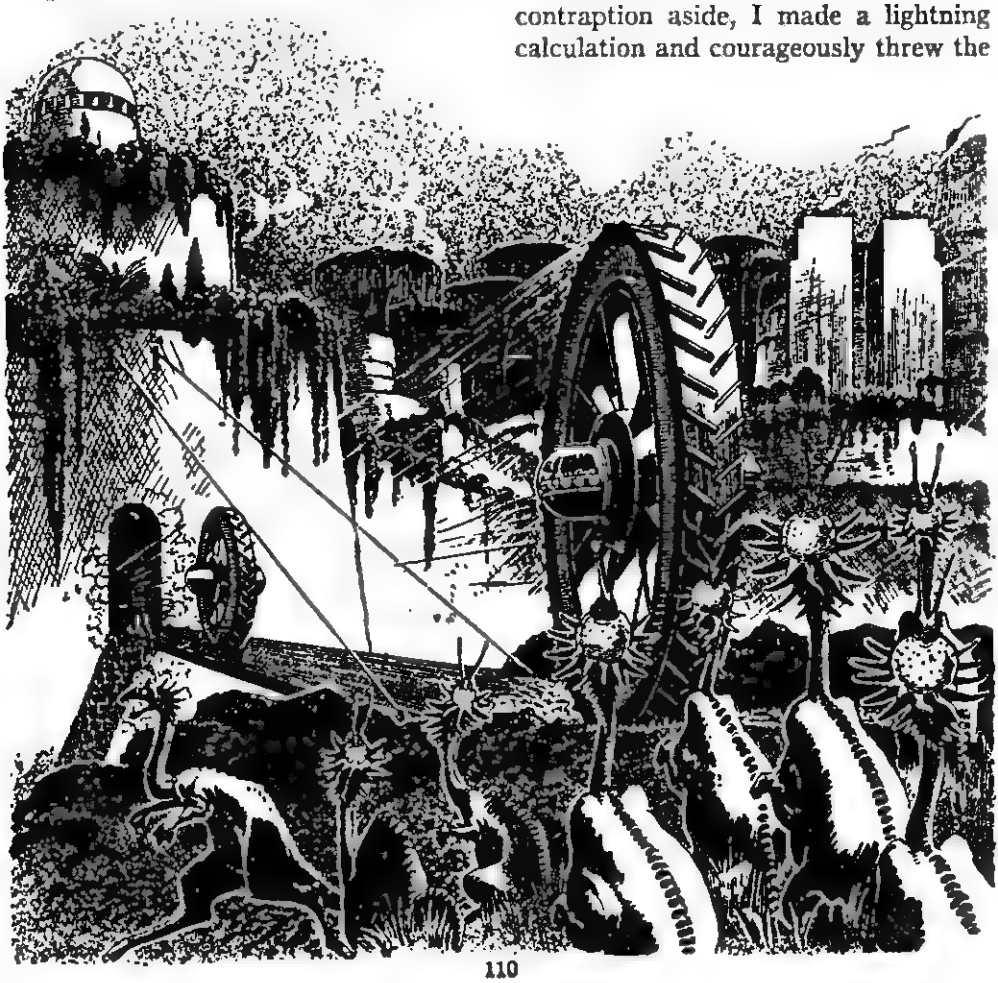
"REVOLUTIONARY!" I frowned, as the giant liner INTERVOID thundered on through space in its ridiculous attempt to reach Altair. "A sales plan of mine okayed *before* its inauguration."

I looked up and saw, to my horror, a dead world of tremendous bulk, hurtling out of the voidal wastes straight for our bow. Bellowing a warning, I flung myself from the observation salon, across the hall and into the control room. No living thing was in evidence. A sign read:

CAUTION: ROBOT PILOT IN OPERATION

"A mechanical failure!" I gasped.

Flipping the soulless metal-and-wire contraption aside, I made a lightning calculation and courageously threw the



Trust Juggernaut Jones to see a market for his fliers on the most war-torn world in all the solar system—and do some fighting too!

All through the ages monsters and machines have battled on this world

mighty liner into an emergency starboard swing. Clouds of unoxidized methanized X-anthracite powder spued from the rocket tubes as the INTERVOID went into an unexpected end-over-end spin.

"Improperly calibrated controls," was my decision as I, the robot pilot and a discouraging amount of control room equipment landed *en masse* upon the ceiling.

All of which was a hell of a mess and it was all happening because of a spacegram from my boss, back on Earth. He always gives me these easy jobs to pull off!

SPACEGRAM *(Galactic Service)*

TO: V. Parker Jones
Field Manager, Intersystem Sales
c/o Spaceliner INTERVOID
En Route Altair Planet System

Message: Your proposed sales campaign on recently-contracted Planet A-8, Altair System sensational! Uneek Fliers, Inc. 100% behind daring plan to employ its demonstrator line of hypomagnesium atmospheric planes, which follows you on freighter COMETDUST, in an attempt to free enslaved peoples of Planet A-8 . . . Warning: Commissar of Intersystem Relations recommends extreme caution. Situation critical. Conquering Mercus, now in control of A-8, believed waiting only an incident to launch annihilating attack across void against our entire system.

Go get 'em, Juggernaut!
Harmon T. Dee
Manager Interplanetary Sales
New Chicago, Earth.

"HOP to it, Baldy!" Captain Bradley—an under-fed, sinister gentleman—said unpleasantly, thrusting me bodily into the knee-deep piles of unexploded fuel. "Here's your broom!"

"This," I frowned, "is a rocket chamber."

"Exactly. And you're gonna sweep it." The INTERVOID's master grinned evilly. "We figured on killing you only nobody could invent a way brutal enough to do your crime justice. An end-over-end spin at top speed!"

"But that gigantic dead world would certainly have —"

"Gigantic, he says! Two-ton, that was a five-foot hunk of stellar dust which the robot pilot was already shunting aside . . . God pity A-8 if *this* was a sample of your plan!"

"Insulting terms," I said, "like 'Two-ton' are futile. Rival salesmen, jealous of my prowess, often utter such. My closest rival—an unscrupulous Mr. Joe Karp who, before his fatal defeat in a competitive test of product beneath Mars' Sea of Piscar- even dubbed me 'Juggernaut' which, obviously, doesn't describe—"

"Stow it, Blubberpuss. What's this crazy plan you've got?"

"Does it matter? We won't reach Altair for generations."

"What!"

"Altair," I said bravely, drawing a cigar from my pocket, "is upwards of 15 light years from our system. Naturally—"

"Amazing! He's still figuring spacial distances with terrestrial math. Ignores completely the warps and distortions which are key factors in today's spacial trig. You jerk! A modern spaceliner—without *you* aboard—can rise Altair's system in thirty days. *You're* the reason we're dragging in ten days late, having already been passed by that freighter COMETDUST which is cargoing those asinine magnesium-burning planes you *aren't* going to demonstrate."

"*Are*," I corrected.

"You, Mr. Jones, will be too busy sweeping rocket chambers."

"Piracy!" I thundered.

"Tossing a blunder-blimp like you down on A-8 would be like shooting a spark across these electrodes while we're inside this methane-saturated chamber. Don't you know *yet* what the ticklish situation is on that particular planet?"

"A-8," I said, unwrapping my cigar, "has breathable atmosphere. Its peoples, enslaved by a mysterious conqueror, only recently helioed a call for help to our system. It is hoped our aiding them, secretly, will lead to better commercial relations."

"Incredible!" Captain Bradley whispered. "With our entire system threatened, *he* thinks of sales and those broken-down Uneeks!"

"A Uneek Flier," I said sternly, clipping my cigar, "is *not* broken down. Being rocket driven by high octaned magnesium, whereas its closest rival – the inferior Globe Glider- relies on ground-contacting repulser rays for flight, a Uneek is able to soar freely over mountainous terrain and uneven-bedded rivers. Further, because of its tremendous reserve power, the added weight of armor, guns and—"

"So *that*'s your plan! To sell revamped Uneeks for war!"

"You," I said darkly, reaching for my hypo magnesium cigar lighter, "have spied upon the message I spaced back to Harmon T. I shall take steps to "

"Don't!" the man screamed. "The methane gas—"

I held firm, cigar lighter poised. "Not even bribes will stop me. I shall inform the authorities—"

"Fire-damp!" Captain Bradley shrieked as I pressed the "on" button of the lighter.

GAD!" the creature said, staring through one lidless, phosphorescent eye set high on a turnip-shaped head. "What a waistline!" Its many-fingered hand suddenly tightened upon an ugly white spear. "You've got *two* eyes!"

"Naturally," I said, facing the bloated, blue-skinned apparition courageously. The fact that my blistered ankles were chained to the cell wall did not influence my stand.

"You," I said to this elephant-legged denizen of Altair's Planet A-8 upon which the INTERVOID has just landed, "waddled through that cell door without opening it. A ghost, perhaps?"

"Quit screaming, blast it. I'm no ghost. I'm A-Lee."

"The King of A-8?" I asked.

"King! Shucks, I'm only an army private. Drafted off the farm just last week. It left my paw with eighty acres of humerus land—hey! You trying to pull something, Bub?"

"Not I," I scowled. "It's you!"

"Me?"

"Certainly. I usually contact kings." The thought struck me. "Since your people, obviously, are *not* of human form, I should expect, considering the unusual turns this campaign is taking the fiends who hold you in bondage to be *human* in form. But that," I smiled rubbing my coal-dust coated hands, "would be ridiculous."

"You're nuts . . . But I'm rounding up stragglers." Private A-Lee's eye glowed a perplexed green. "You're dark-skinned and fat like us, but you've got *two* eyes. You anything like the gang on this ship?"

"That," I said, "is debatable. As a salesman, I have been likened to cold, obstinate metal. Naturally, I knew a mixture of methane, coal dust and air explodes on contact with flame. But, apparently the robot gas detector had

failed in the chamber I was being forced to clean."

"You *are* one of our crowd!" Private A-Lee's eyes sparked an angry crimson. "Captured, tortured and forced to work! Bones, the situation *is* serious. Those skinny, white things *can* reason! They de-charged you, then chained you." He patted my shackles and they melted away. "C'mon, we've got to warn the sergeant." He vanished into the tel-iron door only to pop quickly back. "Forgot you were de-charged. Here."

His hands patted a hole in the barrier. "Now let's travel!"

En route to the INTERVOID disembarking chamber, my agile brain whipped into action.

"He thinks I'm a native A-8ian," I thought, "because of this coal dust and my tremendous muscular development . . . Skinny, white things—Zounds! his conquerors *are* human in form. But, obviously, these A-8ian Blues haven't been taking their bondage seriously.

It's possible that only an incident of cruelty against a fellow citizen can jolt the isolationists into the rage needed to defeat their capable, aggressive human-like conquerors."

My part was crystal clear.

"As a native A-8ian," I said, "who has suffered agonies, I will arouse the downtrodden masses to proper battle-pitch."

My sales plan, then, would take instant root. Unhampered by my unscrupulous rival, Mr. Joe Karp, I would become (1) liberator of A-8; (2) Savior of the solar system; (3) creator of an avalanche of orders to deluge Main Office.

For hundreds of sturdy Uneeks, revamped to flying fortresses and liberators, would blast the conquerors to oblivion.

AT THE ship's exit, a disheveled Captain Bradley was being held erect by several turnip-headed A-8ians.

"Intoxicated!" I shuddered and joined Private A-Lee outside.

A city of puffball buildings lay around me. In every direction, far across a river-cut, pinkish countryside, a precipitous mountain range was sparkling under mighty Altair's seering rays. So high this range, I knew instantly not even Uneek's latest creation—a 22-jet, one-man sport airsled—could blast out of this vast crater.

A smaller heavenly body, glinting a weird metallic blue, hung to the east. Decades past, in 1919, a strange blue star had appeared suddenly in Aquila to fade rapidly. Perhaps this was that star, born of colliding bodies, with fragments digging craters like this on Altair's satellites.

"The moon of mystery," I said solemnly.

Out at the crater-city's western outskirts, along which wriggled a wide, silvery river, there was a clearing resembling an army encampment. On its parade ground rested another spaceship.

"The COMETDUST," I nodded.

The freighter was trembling as though the pink ground beneath it was being torn by quakes.

"Heat waves," I decided.

We had landed inside a park of white-boled trees from which drooped long, silky foliage. Centered in this park, in the fashion of an earthen county-seat, was a squatty, domed structure. Lesser buildings, undoubtedly shops, were banked around the park with one pink-surfaced boulevard, jammed with antiquated wheeled vehicles, winding off to the west to cross the river near the army camp.

Hundreds of people were crammed below me in the park area, many re-

sembling Private A-Lee, but many more perfect replicas of my race.

"The enemy! Pseudo-humans!" I gasped, then frowned.

White-skinned master and blue, one-eyed slave were mingling freely. Indeed, only a few of the human-like monsters—those wearing odd, egg-shaped helmets—showed any clannishness. Most of these were across the square, intent on something behind the courthouse.

But most bewildering was the unearthly stillness. Not even a cough rose from the multitude.

"This," I said, "is ridiculous. The Blues and Whites, save for a helmeted few, are practically arm-in-arm. Is this customary?"

"So far, yes," Private A-Lee confessed. "But when they hear about your mistreatment—Yow! I forgot to report!"

HE HUSTLED away. Silently. I recalled, then, I had not heard his voice. Nor, I suddenly realized, had his lips moved.

"Advanced ventriloquism," I decided and recoiled as a scratchy voice lifted from behind the courthouse where the helmeted pseudo-humans were collected.

". . . controls a child can master. Note these openings: mere pinpoints, yet from them shoot the unsurpassed motivating repulser rays. Remember: no noisy rocket tubes on a Glider to set fires on low-line flights. No—"

A squad of Blue soldiery bolted past me, Private A-Lee attached.

"We're after the ring-leaders!" he announced in his tricky, soundless delivery.

They plunged into the crowd. Following, I took two bouncing strides on rubberish ground, then trod upon a lumpish object.

"Elephant!"

A brown-eyed girl, with chestnut tresses tucked under a helmet, was rubbing her foot vigorously.

"Elephant."

Again: no voice; no moving lips! Yet the picture of a giant pachyderm had flashed across my mind. I understood instantly. Aping the ventriloquistic art of a true A-8ian, this voluptuous fiend was craftily seeking to hinder me from carrying out my stratagem.

"A commendable effort," I murmured. "But futile. However, after I have saved A-8 and made my sales, perhaps we two could—"

But the girl, terrified by my lightning grasp of the situation, hurried away. I plunged on across the rubberish ground. The paunchy Blues were rapidly seizing all helmeted pseudo-humans in sight but ignoring, for some reason, the fiend's stoic-faced, bareheaded brothers.

Rounding the courthouse, I saw, lined against a hedge which bore flowers shaped amazingly like the girl-monster's tawny eyes, a collection of atmospheric planes. An exceedingly thin gentleman—the same whose voice I had heard—was cringing against a ludicrous model which I instantly identified as Globe Glider's crude attempt to match Uneek's latest masterpiece—the fast, single-passenger 22-jet airsled.

"Juggernaut!" the wretch gasped.

Mr. Joe Karp, then, had lived to fling his inferior line of Glider demonstrators aboard the COMETDUST and beat the crippled INTERVOID into A-8.

"Nice going, Juggy!" Mr. Karp hissed. "Keep it up and we'll—"

The Blue soldiery swarmed forward. In a trice, Mr. Karp was being dragged off by his heels.

"Peddling without a license," I remarked, then scowled.

Here was another unprecedented turn. Mr. Karp, not myself, was being hustled off to jail. Private A-Lee waddled up.

"Some haul, eh, Bub?"

"Take me," I directed, "to your leader. And hurry."

Time was pressing. It would be commendable, naturally, if the aroused A-8ians overthrew the conquering pseudo-humans single-handed, but it would be fatal to article three of my stratagem. I.e.: sell Uneeks.

INSIDE the courthouse, while Private A-Lee hustled off to arrange an interview, I attempted to interest officials in patriotic slogans, such as "UNITE WITH UNEEKS" and "VICTORY WITH 'VICTORY' PARKER JONES." However, all contacted parties, lacking authority, kept referring me to other departments with the result I quickly found myself high in the dome outside a room from which issued a weird tingling force.

A guard politely suggested I leave.

"The room of mystery," I remarked and started back.

A collapsing step placed me rapidly in the basement. The entire building, obviously, had been constructed of the unstable, rubbery soil.

"A rudimentary plastic," I decided.

Its warmth to touch led to the obvious conclusion.

"Faulty insulation," I frowned.

Down the hall, I perceived several rooms, isolated by fine-meshed grills—in which huddled the helmeted fiends. Mr. Karp, Captain Bradley and the designing beauty who had foolishly tried to thwart me languished behind one grill.

"How's things going, Juggy?" Mr. Karp asked.

"Smoothly," I replied.

"I'll bet!" Captain Bradley injected. "Karp, I *still* don't trust this blunderblimp. If he slips up—"

"I won't slip," I said haughtily. "Neither will I forget your criminal act regarding spacegrams, nor your shocking condition—"

"See what I mean, Karp!" Captain Bradley leered.

A passing A-8ian attracted me to a disorderly room where I perceived many pseudo-humans, writhing beneath straps upon brown-stained tables. White-frocked A-8ians were waddling about, removing the egg-shaped helmets. One case—that of a monster disguised as a very voluptuous blonde presented difficulties. The A-8ian doctor finally straightened in exasperation, seized a large ax and swung it down on that creamy white neck.

The helmet was removed. So was the patient's head.

Then, possibly due to the extreme heat, I lost consciousness.

REVIVING, I found myself in an antiquated A-8ian auto, progressing down the city's main thoroughfare. Private A-Lee sat beside me, driving. Both auto and street were fashioned from the unstable plastic.

Since roads and strange materials are constantly injecting themselves into my campaigns—chiefly by violent oxidation—I took my hypo-mag cigar lighter and applied the flame to the car's dashboard. The material shrunk slightly, but other than the outcropping of several whitish bumps, it failed utterly to ignite.

Private A-Lee wagged his head. "You sure are de-charged. We had a time, dragging you up those stairs . . . The commissioner says he'll see you when we get back."

"Back?"

"I'm on a 12-day furlough. I'm taking you out to the farm to recuper-

ate. It's a reward. Your warning enabled us to mop up in great style."

I frowned. With the false humans annihilated, articles one and two of my stratagem—free A-8 and save my system—would be concluded. Even three was threatened. I must, obviously, find a peace-time substitute market. My eye alighted upon this antiquated car's scorched dashboard.

"How long," I asked, "will it take us to reach your farm?"

"Five days. It's away out west, butted against the Poison Hills."

"Perhaps," I said, remembering that a complete line of Uneeks still reposed in the freighted COMETDUST, "if I could furnish a quicker means of transportation—"

"Don't bother. I'd just have more time to argue with Paw. Blast it, some of his old-fashioned ideas on how to prevent spot-light, blemishes and such make me boil!"

"What's your crop?"

"Humerus. A special hybrid type."

"Where do you market it?"

"Here in A-8ton City, naturally."

"And how is it transported?"

"In cars something like this."

"Then," I said triumphantly, "what would you say, Private A-Lee, if I could furnish a means to reach your market, not in days, but in hour's time, thus eliminating the tedious haul in vehicles incomparable to the sleek, speedy, free-flying Uneek—"

"You," Private A-Lee said, "recuperate fast! Speed—blah! We get enough of that from the Stingbees."

"The what?"

"Stingbees. Blast 'em. They zoom over the Poison Hills and before we can rush a warning around, half the country is stung out of its harvest. . . . Ooops!"

An irregular thumpy noise came from the car's right rear region. We were, I noticed, on the city's outskirts, directly opposite the army camp. Soldiers were drilling furiously around the freighter COMETDUST which loomed high above surrounding barracks.

Private A-Lee stopped. "Flat tire," he said, kicking disgustedly at a mushy brown mass around the right rear wheel. "We've got no spare, either. No farm for us."

"Wrong," I said firmly, gazing across at the COMETDUST. "Prepare, sir, for an amazing experience."

THE cabin of the 22-jet, one-man airsled — Uneek's latest — was cramped, due to Private A-Lee's plumpness. Before starting, I explained each control, simultaneously watching the unique drill maneuvers going on about us. The squads, marching towards the COMETDUST'S tel-iron hull, would, at a voiceless command of *"BREAK"* continue ghost-like through the ship.

I zoomed off with all jets blasting out dazzling white streamers. My line of flight, unfortunately, was sideways, due to a slight rearrangement of controls. Before leveling off, I interposed some spectacular loops—removing the roof of Headquarters Building by mistake—to impress my prospect, only to discover that Private A-Lee had, at the start, given himself the "Break" command and had slipped through the airsled's bottom to the ground where he stood now, conversing with his fellow soldiers.

All were waving their spears in hysterical approval. In bowing, I undershot, mowed down ten barrack buildings and landed atop Private A-Lee who, luckily, "broke" himself the instant of impact and was once more inside the ship.

At his unspoken although hasty

suggestion, I took off.

"Maybe," my passenger said, "I can hide you out somewhere on the farm. Ho, mamma, what a mess!"

Skimming the rapid, silvery stream west of camp, we circled far afield, reaching Private A-Lee's farm nestled against the crystal-white crater wall. The elder Mr. A-Lee, who met us, proudly cut a knobular-ended root from the plastic field.

"Turning white already," he boasted. "And look at that top soil! Nary a pimp in forty acres. Old-fashioned, eh!"

"What," Private A-Lee said, suspiciously, "goes with our *south* forty? . . . Spot-blight!" he raged as we arrived at a field marred with ugly red blotches. "You and your quack remedies!"

By popular request, I retired to a cave-like fissure in the crater wall. The solid cavern floor was strewn with whitish crystals upon which neither A-Lee would step.

Alone, I bathed my blistered skin carefully in a briny stream and after dark, roamed the spot-blighted field, seeking more palatable water. I found a brook but the weighty water displayed such an alarming tendency to slip through my fingers and explode into myriads of small globules upon striking the ground that I desisted.

"Heavy water," I decided. "Undoubtedly poisonous."

Private A-Lee came waddling up rapidly.

"The cops—the cops—"

The Blue A-8ian officer, following him closely, made an unpleasant gesture with his spear.

"I suggest," he said voicelessly, "you both come peacefully."

"Both?"

"Naturally. The crime of aiding and abetting an enemy white—"

"Enemy white?" I smiled. "Surely, you can't believe me—"

The officer pointed at my hands. The briny water had soaked away the coal dust.

IN the courthouse jail, I faced a scowling Mr. Karp, a leering Captain Bradley and the cunning woman-like fiend whose name was Sila. Her long tresses had been combed across her helmet to conceal it.

Private A-Lee's body seemed grotesque amongst the remaining prisoners, most being true earthmen from the two spaceliners.

"Juggy," Mr. Karp said, "did you ever hear of a robot?"

I nodded. "Uncek Fliers builds a combination course-plotting, flight-maintaining gyroscopic robot-pilot which sells for—"

"I mean a robot that can walk, talk, figure—"

"In Old Washington's museum," I said, "there's a device which can solve geometrical problems in—"

Mr. Karp made a choking sound and pointed at Private A-Lee. "Juggy, what is that?"

"A brave A-8ian," I said, "who risked his all that I—"

"Just what I expected," Captain Bradley sneered, "from a lug who called thought-transference 'Advanced ventriloquism'! . . . Who," he asked, indicating the brown-eyed Sila, "is *that?*"

I scowled. "A monster whose heart is black with intrigue."

Mr. Karp held his head, moaning, "Juggernaut, don't you *realize* what you've done?"

"Certainly," I said, "by a clever stratagem, I jolted Private A-Lee's people from their lethargy, enabling them to overthrow their pseudo-human conquerors."

"I think," Captain Bradley said, "I'll slug you!"

"Not while I live, you won't!" Private A-Lee's thought flashed angrily.

Mr. Karp groaned. "*Live*, this crazy frankensteinian monster calls it!"

"Sir?" I injected.

"Now?" Captain Bradley pleaded, rolling up his sleeve.

"Wait," Mr. Karp said. "Juggy, think hard! That secret room of tingling waves -this power of thought projection—the insulating helmets—the scarcity of metal in this plastic world. Can't you tie that together?"

In removing my handkerchief -the heat suddenly becoming insufferable—some whitish crystals I must have collected in the cave, flew under Private A-Lee's feet. That gentleman jumped squeamingly much to Mr. Karp's surprise.

"Our heads," Mr. Karp murmured, "may get chopped off."

"Mine as well," Private A-Lee broadcast grimly.

"Now," Mr. Karp said, "we're getting somewhere."

HE began babbling questions about the humerus farm, the cave, the Stingbees, which all A-8ian farmers dreaded because of the inadequate warning system—even inquiring about Private A-Lee's power to melt away leg shackles. To convince my scoffing rival, the soldier demonstrated upon the cell door. Abruptly, there was no door left.

"Now," Mr. Karp said, "it starts. Sila, does your crowd know what to do?"

"Right. We'll attack along the road."

"Bradley, your job's to get this gang aboard the INTERVOID. Without helmets, A-Lee's gang'll think we're nullified, too."

Captain Bradley nodded. "And the INTERVOID'll take off immediately. I'll stay behind and be ready on the COMETDUST in case you've got to run for it."

"This," Private A-Lee's thought came darkly, "is confusing."

"Easy," Mr. Karp soothed. "After all, it's *you* we're thinking of. Here's the idea: you guys've got everything under control but those crop-destroying Stingbees. In slow autos, you can't get the warning around quick enough. Now, if *you* could promise your commissioner a lightning fast method of relaying a warning—"

"The machine," I said hurriedly to Private A-Lee, "for this courier service is, of course, a speedy Uneek airsled which can speed across-country without fear of flight disruptions your uneven-bottomed rivers would certainly create in an outmoded, repulser ray—"

"I would never," Mr. Karp said, "have believed it. Not even from Juggernaut Jones. He still thinks these mechanical—"

"Stow it," Captain Bradley snarled. "Time's a-wasting!"

"OUT of fairness to Mr. Juggernaut," Mr. Karp said to Private A-Lee as the personnel of both spaceships walked boldly from the cell en route the INTERVOID, "we will make this another competitive test. We will ride my Glider airsled to your humerus farm where Juggy's ship is parked. Assuming that the Stingbees are attacking, we'll speed the warning back here where, supposedly, a fleet of courier ships is waiting to blanket the country. Naturally," he added with a worried glance at me, "the first sled to arrive at the courthouse wins the order."

Stealthily, we made our way to Mr. Karp's inferior airsled still parked beside the hedge, bearing flowers so like Sila's eyes. I sighed as that girl, together with Private A-Lee, Mr. Karp and myself, jammed into the cabin. To think that a Glider one-man sled could rise with this overload was ridiculous. As we took off, I noted that, even with the added power which had been unethically engineered into this demonstrator, its performance was sluggish.

Below us, we saw Captain Bradley racing towards the army camp and the COMETDUST. Back of us, the INTERVOID went rocketing skyward.

"Thank God!" Mr. Karp muttered.

To cross the fast-running river west of the army camp, my rival chose the bridge for support, knowing the dangers an uneven river bed afforded his downward-pressing repulser rays.

At the humerus farm, while I readied my flier, Mr. Karp took Sila on a test flight along the white-walled cliffs.

"We'll each take a passenger," he said upon returning, "Thus testing durability as well as speed."

Naturally, Sila chose to ride with me. She, I noted, had even fixed up a lunch box. Private A-Lee reluctantly climbed in beside Mr. Karp who shouted,

"When I count three—go!"

I was away at blinding speed even before he finished, "One!"

"That wasn't fair!" Sila protested.

"You," I soothed, "don't know Mr. Karp's trickery." I frowned. "Another incredible turn. I am in front at the start!"

"You're wonderful!" Sila thought, patting my hand.

We did an Immelmann. Before I could wrench the controls from the terrified girl, Mr. Karp had drawn abreast. Then, slowly, that unethically high-geared Glider began inching ahead. I grasped the throttle. Several notches remained before high speed but Sila, in her fright, had bent that lever's guide so that, tug as I would, the lever refused to slip past.

The craven Mr. Karp suddenly hurled his starboard rays against us, precipitating a wild power dive. I reached for elevation lever. I tugged. It would not budge. That, too, Sila had bent beyond repair.

"The crisis," I said, "And, of course, our end."

RALLYING to my clarion call of "Danger!" the soldiery Blues had overthrown their human-like conquerors. But my dream of a peacetime fleet of Uneek courier planes would die with me. The A-8ians would purchase Mr. Karp's inferior product, incomparable in stock models even to this high-geared demonstration model.

"Courage!" I cried and waited.

No crash came. Opening one eye, I saw that Sila, given maniacal strength through fright, had freed the elevation lever. Leveled off, we were rocketing along behind the dastardly Mr. Karp.

We were nearing the city. Ahead, lay the wide, rapid river and its one bridge toward which Mr. Karp was already winging. Both bridge and road were crawling with spear-armed hordes of helmeted pseudo-humans. Brave but out-numbered Blues were waddling past the COMETDUST, where Captain Bradley waited, and out of the army camp to the road to give battle.

A surprise counteract. Objective: the courthouse and its mystery room. This contest, then, was more than a test of product. I raced again to cry "Danger!"; to save a A-8 and our system.

"Mr. Karp," I said, "is in league with the monsters!"

He had succumbed to Sila's wiles.

He had tricked ex-farmer A-Lee into securing our release. He raced now to destroy.

Mr. Karp was leading. And drawing steadily away for though I wrenched furiously, I could not force the throttle open.

"The super-crisis!" I cried and my agile brain spun into action.

What had brought this ghastly turn? Mr. Karp's trickery!

"Fire," I cried, "must be fought with fire!"

Centering Mr. Karp's machine across my vision shield, I flipped the "on" switch of the forward-pointing rockets. My airsled slammed to a mid-air stop, perfectly matched tubes spitting flame. Mr. Karp's rickety ship was spinning insanely. I had rocket-blasted him dead center.

Salvo after salvo, I crashed against the blackened hull, driving my competitor far afield.

"I have," I thundered, "fought fire with fire. Now—on to victory!"

I hurled my sled low across the water. My rocket blasts hissed deep into its surface. I turned, expecting to see flames writhing skyward to check Mr. Karp forever. There was only a rust-red crust upon that silvery surface.

"That river," Sila said, "is mercury. These automatons are built of mercury which they drink as we do water. They hold us to their metallic will with the courthouse thought-nullifying machine. We might have beaten them but you—you —"

Mr. Karp, unhurt, was already streaking in my wake. A faster airsled —and the courthouse still far away. Out over the rushing Mercury River, Mr. Karp darted. And things happened.

AS those flight-supporting, downward-pressing rays struck that near-noble medium — far more dense than water —they were swept aside like match sticks by the moving liquid. The Glider started whirling pinwheel fashion. Its trunk-storage door flopped open and a quantity of white dust spewed out.

"That," I said, "looks like crystals from my cave."

"You—" Sila said, "you—"

She snatched the controls and hurled us southward. Her helmeted cohorts were slashing rapidly through the outnumbered Blues. We went roaring up the road on which they fought with friend and foe diving to escape our rocket blasts.

"Our last chance!" Sila was thinking wildly. "The courthouse!"

She wrenched the cover from her lunch box. Inside was more of the strange white crystals.

"This," I said, "has gone far enough."

Sila smashed the box down on my head. The crystals flew everywhere. The raging girl was swinging a wrench. I ducked. The wrench struck the control board. Several levers snapped. All rear rockets blanked out. Quickly, I reversed the ship and switched on the forward tubes. Only two responded. But our fall was checked.

And as we backed, at a snail's pace only inches above the road, I dug at my smarting eyes and licked my lips.

"Salt!" I cried and my agile brain went into high gear. "Salt is sodium chloride. And sodium has the power to solidify mercury. A deadly poison, then, to these mercury-men. By sprinkling salt upon the courthouse, you two planned to render it hors de combat. I, V. Parker Jones, have thwarted you with my own bare—"

"—hands!" Sila finished. "Look at yours!"

My flesh was stained with weird red

blotches, exactly like the deadly spot-blight which was ravaging the A-Lee humerus farm.

"Doomed!' I choked.

My rocket blasts were gouging deep into the road, lifting a most nauseating stench. Yet the pseudo-humans were charging unhurt through oily smoke clouds, flinging back the crumbling Blue army.

Mr. Karp, too, had righted his vessel, crossed the bridge and was rocketing fiercely towards us. He would pass my crippled Uneek with ease. His trunk corners would yield enough salt to blanket the courthouse. With the Blues solidified, the thought-nullifying machine would stop. Thousands of the unhelmeted fiends would then join their soulless brothers.

A-8 would fall. And then . . . Earth, Mars et al!

And Sila was again lifting her wrench to strike me.

"Fire," I said, "must be fought with fire."

I SNATCHED the wrench and struck the girl squarely on the head. Her metal helmet split into fragments. Sila screamed. I struck again. She stopped screaming. Opening the cabin door, I tossed her limp white body down upon the roadway. My rocket exhausts hissed across it. A Blue stumbled over the blackened hulk. He stopped and drove his spear down.

"That," I said, "should do it."

Below, the scorched earth was lumping up weirdly. The charging whites were tramping upon those bumps, breaking them and then skidding helplessly about like chickens on ice—to die as the Blues dived jubilantly back to battle.

As Mr. Karp raced closer, Private A-Lee courageously "broke" himself and plunged through the Glider's bottom to land unhurt and join in the slaughter.

Yet, passing me, Mr. Karp and his salt could still wreck all.

"Fire," I said, "with fire!"

I tilted my ship. With superhuman strength, I jerked the throttle past the bend. The rockets hurled me upward. Mr. Karp braked too late. There was a splintering crash and both machines spun into the roadway.

I scrambled out of the wreckage just as Mr. Karp emerged.

"I lived," he screamed insanely, "to break your fool neck!"

"Drastic but necessary," I soothed "Our friends, the Blues—"

A spear whistled past my ear. Another cut a gash across the back of my red-speckled hands. The first tinge of doubt struck me.

"In the heat of the battle," I said uneasily, "the A-8ians can't tell us apart. My friends—"

Another spear burned across my nether regions. Courageously, I led the way through a hail of weapons across the parade ground and up the COMETDUST'S gangplank.

Captain Bradley was in the control room.

"They've got us," he said hollowly.

Out of the walls came a horde of turnip-headed, blue-bodied A-8ians. Their bloodied spears crystalized my doubt into solid fact.

"My sales plan," I said, "has failed. There will be no courier service, no speedy Unceks to—"

"Planes!" Captain Bradley shrieked. "He babbles about sales when these crazy robots—"

The blue warriors lifted their spears. Every eye gleamed a murderous red.

"I'll cheat 'em!" Mr. Karp shouted, bounding insanely at me. "Before I die, I'll bust every bone in Juggy's head!"

"Sir?" I inquired.

Mr. Karp screamed, "I'll break every bone—"

Confusion reigned about us. The surprised but well-trained soldiery were disappearing into the floor and thence to the unstable ground below, obeying the "break" command I had cunningly goaded Mr. Karp into screaming.

Captain Bradley leaped for the controls. A split-second later the COMETDUST was thundering skyward, free forever of this strange planet and its weird blue moon.

"We," Captain Bradley said, rolling up his sleeves, "will take turns, Mr. Karp. Juggernaut Jones, we're gonna beat the living tar out of your fat—"

"Living?" I said sadly. I held up my spot-blighted hands. "You wouldn't, gentlemen, strike a dying man."

MUCH later, the spacegram which was tenderly placed in my blight-ravaged hands as I lay in the isolation ward, bravely awaiting the end, was, I confess, a bit startling.

The message was, of course, from my immediate superior—one Harmon T. Dee—and it read:

"Belated investigation proves incredible fact. YOU WERE RIGHT! Your commendable stand enabled Mercurymen, who had been blown from diametrically opposing life-plane by 1919 blue-star cataclysm, to defeat their flesh-robots who were in revolt. . . . By means of captured helio-beam broadcaster, which flesh-machines had used in cunning attempt to obtain metal for insulating helmets, Mercurymen are conferring on you Distinguished Service Medal of Crossed Humerus Bones. . . . Sila being repaired and will be presented to you along with 400-acre farm equipped with eyebushes, hair-tree orchards and enough bone-growing fleshland to construct and service one thousand robots per season. . . . Entire attacking force of pseudo-humans destroyed after running afoul of giant blisters you burned upon flesh road. Mercury-men swamping Uneek Fliers with orders for airsled courier planes to be used to warn of Stingbee (mosquito) attack. . . . Private A-Lee, now CAPTAIN A-lee, sends best wishes for speedy recovery from spot-blight disease you contracted from his land.

Quit sniffling, you (deleted) blimp! All you've got is measles.

HARMON T."

THE END

TIRE MAGIC!

ARE YOU worried about keeping your automobile mileage down? Of course you are! Do you worry about your tires? Of course you do! Then read closely what Science has found

In these trying times, anything that will add mileage to automobile tires deserve attention, and car owners everywhere will want to know what Transmotive Laboratories has to say about the Prolatex Rubber Savings System that it has developed. This preservative has a base of soya-bean oil (old faithful!) compounded with several well known chemicals that check the deterioration of rubber.

This substance is a low viscosity penetrant that is absorbed quickly and fills the pores, cracks, minor cuts, and abrasions; it seals the outside surfaces against oil, grease, gas, and air, as well as the harmful rays of the sun. It can be applied with the tires in place by immersion in a special dipping tank, permitting them, together with the spare, to be treated in as little as from 20 to 30 minutes at a cost of about 50 cents a tire. All kinds of rubber products can be benefited from this process.

This may be the life-saver of the war on the home front. One can imagine a typical filling station scene: while the driver stops to re paint her stockings, her tires, too, "can be done"— all during the time it takes to drink a coke!

The Whimsies were her slaves; she their queen

VALLEY OF THE BLACK SUN

by LEROY YERXA

Here in this valley light became dark under the influence of an incredible black-shining sun!

THE Gypsy girl's soft fingers traced the delicate lines in the palm of Gloria Duncan's hand. The Gypsy's forehead wrinkled slightly and when their eyes met across the table, there was a look of fear in them that made her lips firm and white. An expression of bewilderment that mirrored itself on the faces of Gloria Duncan and the tanned young man at her side.

"Well?" Gloria said. "I came to have my fortune told. What do you see in my future that's bright? Any tall, dark young men?"

She turned to blond-headed Ray Walters, and the deep love in her eyes betrayed her innermost thoughts. At the expression on his face, she hesitated. Walters looked as though he had seen a ghost. His dark eyes were on the Gypsy. Slowly, Gloria Duncan faced the Gypsy girl once more. The thing that had started as a lark for the two of them, had for some reason beyond her ken become dark and sinister.

"I-I don't understand," she didn't know why dread welled into her heart. *"Please, what is the matter with you two?"*

The Gypsy girl beyond the table stood up slowly. She moistened her lips.

"I'm sorry, Miss Duncan. You—have—no—future!"

Gloria Duncan laughed. Somehow, there was nothing else to do. They had come here, Ray and she, because Ebon Vale had gained no mean reputation as a foreteller of the future. Contrary to the world's usual picture of a fortune teller, Ebon Vale was lovely. Even as she stood before them now, swaying against the table, her wide-set blue eyes, the mass of golden hair piled in curls atop her head, made her more a queen than Gypsy.

Gloria had laughed because Ray believed in these silly things the readers of the palm could tell. Now, she laughed again, but the hysterical, frightening ring of her l a u g h t e r mocked her from the curtains of the little room.

"Everyone has a future. I've paid to find out. I know this is all a joke, but after all . . . ."

She stopped, waiting for Ebon Vale to explain herself. Ray Walters stepped close to the table that separated the couple from the strange girl with the golden hair, chilled by the

look on Ebon Vale's face. There was too much fear there. Too much certainty. Her words had the ring of sincerity that frightened him.

"Look here, Miss Vale," his face was quiet and earnest, but pale. "Miss Duncan came here because we thought it would be fun. Gloria and I plan to get married next week. With all the emotional strain she is now under, I hate to worry her with foolish things. Be a sport and give her a good future with three kiddies and a cottage with roses, will you?"

He smiled at her, waiting. Ebon Vale's expression did not change. She drew away from them and her head lifted with that slight touch of haughtiness that characterizes true faith.

"You came here because you wished to laugh at me," she answered. "You thought me the dirty, tent-show fortune teller who would take your money and tell you lies. I will not take your money and I *cannot* lie."

"Then you mean . . .?"

"Exactly what I said," Ebon Vale answered through tight lips. *"No one is more sorry than I that Miss Duncan has no future."*

She tossed two coins on the table, turned her smoothly-clad young back to the bewildered couple and walked through the curtains. They stood alone, staring at the two half-dollars they had paid.

Gloria Duncan's fingers groped out and into Ray Walters' big brown palm. She looked up at him, smiling.

"Let's get out of here," she urged. "The darn place gives me the creeps."

There were tears in her eyes as she spoke. Gloria Duncan, for the first time in her carefree life, was deathly afraid.

SCAR VALLEY, Ray Walters had often thought, was the nicest bit of scenery he had ever had the pleasure of driving through. Nearly sixty miles from town and several minutes from the state highway, the rugged walls of Scar Valley were seen by few. They had often come here in the past, Gloria and himself to sit for hours along the Scar River, admiring the sharp, clean-cut cliffs and the green lushness of the valley itself.

There were tales in the little Pennsylvania towns about the "Scar." Simple hill people told their folk-tales of the whimsies, little round-bellied, flame-shaped people who darted up and down the cliffs at night, trying to lure travelers over the steep walls. All these stories made the Scar a more interesting place to visit.

Today, as Walters felt the hard firmness of the steering wheel once more in his grasp, he breathed a sigh of relief. Gloria had settled quietly into the soft leather cushions and was staring over the top of the cliffs and at the sun beyond.

"What a horrible girl," she shuddered suddenly. "It's—it's good to be out in the sun again."

Walters turned carefully, looked at her. Gloria Duncan was the prettiest girl he had ever seen. In three days they would be married. All the freshness of those cool chestnut locks of hair, the warm gray eyes would be his. Every inch of her from slim ankles to the laughing lips would be his treasure.

They rode in silence for several minutes. The valley was nearly three miles long and another five minutes would take them through the high gap that closed it from the world. In spite of himself, the Vale girl troubled Walters. He knew that Gloria was thinking of her also.

"You have no future."

He shivered, remembering the words and what they implied. What in the

name of common sense could happen to Gloria? She was a picture of health.

Although the Pennsylvania sun still burned high in the sky, a slight haze came in slowly and darkened the valley. Without realizing it, Walters drove a bit faster. Something tense and shadow-like was dropping down over Scar Valley. He switched on his parking lights, he might meet another car on the road.

The haze grew thicker.

"Ray?"

"What is it, sweet?"

"That haze? I've never seen it this way before. It's getting quite dark."

He sat forward on his cushion, eyes glued to the darkening road. Still a mile to go. He switched on the headlights and they cut ahead through the gathering darkness. Ray Walters shook his head.

"I don't like it," he said worriedly. "Almost like an eclipse. There aren't any scheduled, are there?"

She snuggled closer to him in the broad seat, her fingers seeking his arm.

"I don't read the papers," she laughed nervously.

IT WAS getting to be a nuisance now. The darkness had settled completely, making a world of blackness with them in the center of it, a world that something other than common sense told him consisted of Gloria, himself, and that queer girl back in the old house.

"I wish we hadn't come," Gloria's voice was becoming hysterical. "There's going to be a storm. Maybe—maybe this is what Ebon Vale meant . . . "

Ebon Vale! Walters' fingers tightened on the wheel and automatically he pushed harder on the accelerator. His fingers were wet and white beads of perspiration started from his face.

Ebon Vale—black valley! One and the same. The girl's name meant black valley. Why hadn't he thought of it before?

The Scar River came in tight beside them now and the road plunged into the last mile. The canyon was close, twisting out toward daylight and safety. The girl at his side, overcome with terror, clung close to him. High above him on the blank walls of the canyon he thought he saw sudden flashes of flame-like light. They darted up and down against the black curtain of rock.

Far ahead around the last curve, daylight filtered in—the sunlight that he was fighting to reach. One more curve, high above the roaring chasm of the Scar's swirling bed . . .

A lonely pine marked the curve. Ray Walters spun the wheel around, felt the tires spin in six inches of loose sand. He realized with a curious chill that he had been going too fast! They started to turn, to twist toward the edge of the sand-covered rock. He jammed down the foot brake, pulling the wheel around as far as it would go. Gloria screamed. It echoed against the stone walls, hurtling back to them with all the pent-up fear that was in her heart. The car tipped crazily up on two wheels and spilled over the edge of the canyon. It fell end over end into the deep swirling water below.

Through Ray Walters' head, as they poised that one second in mid air, one message pounded home a million times.

"You have no future! You-have-no-future! You . . . have . . . no . . ."

"YOU are safe now. There is no cause to worry."

Ray Walters heard the voice seemingly from far away, and recognized it at once. It was Ebon Vale. He tried to sit up and was surprised to find that no river water soaked his clothing. Rather, he felt as though he had been

long and refreshingly asleep. Nothing in Ebon Vale's room had changed.

Ebon Vale, cool and lovely, was standing over him. She was clothed in an ankle-length robe of shining, translucent material. It wrapped smoothly around her body leaving the wealth of long hair, the smooth shoulders free. As he stared up at her from the couch, she s m i l e d. Something far-away and haunting in that smile brought him upright, frightened for Gloria.

"Gloria . . . where is she?" He tried to stand up, felt her force him backward with a light touch of her hand and realized that his body was without strength to resist. It was as though a strange spell had been cast over him.

"I told your fiancee that she had no future," Ebon Vale said swiftly. "She was killed when your car went over the cliff."

He forced himself upright, staring at her with angry eyes.

"You lie," he shouted hoarsely. "You—you . . ."

Ebon Vale's expression didn't change. The same look of patience was there. He allowed himself to fall back against the brocaded pillows of the couch.

"Believe me," she said. "It was not my choice that you stay in the Valley of the Black Sun. I am not in control . . ."

"Wait a minute," Walters got up from the couch, stood over her. She shrank away from him as he looked down at her. *"The valley of what?"*

"You were left alone in the Valley of the Black Sun," she explained. "Those who see the sun fade here, can never see it arise again elsewhere. Gloria Duncan is dead, but of the two, perhaps she is the most fortunate."

He clutched the softness of her arms above the elbows and shook her.

"You've done something to Gloria! The black sun business, the wreck. They were *your* doing."

"No! Please release me. I only predict. I cannot force the decisions of the Whimsies."

"Whimsies?" Walters released her, letting his arms fall hopelessly at his side. "Either I'm crazy or you are. *What in the devil are the Whimsies?"*

Ebon Vale stepped away from him, rubbing the red marks that showed on her arms where he had gripped her. Her head dropped forward humbly.

"Perhaps in your world I am crazy," she admitted. "When you hear the story of the valley you will believe me. *They* will convince you."

Ray Walters, feeling that he was about to lose the last bit of remaining sense he had, sank back to the edge of the couch. Could this be happening in the center of Pennsylvania on the banks of a normal river encased by the granite walls of a natural valley? But there was no mistaking Ebon Vale's sincerity. At least to him, she was being honest.

"All right," he said finally. "Tell me the story and what part I'm to play in this crazy business."

"You play no part," she answered simply. "The Whimsies have chosen you to be my mate. You will live here away from the sight of normal man and act as figure-head ruler of the Whimsies, even as I will be their Queen."

"THERE are tone scales and light scales," said Ebon Vale, "that are not audible or visible to human senses."

She sat on the low rock wall of the garden behind the great house, her fingers toying with the stem of a queerly blackened daisy. Ray Walters sat at her feet, conscious of the intense blackness of everything about him. The valley looked the same as it had before, with the difference that everything was

in black and white. The trees, the land, the cliffs that towered in a distance, were in fine shades of black and gray. His eyes saw no color, even in the girl. She was like a figure cut from black paper and placed there on the wall before him. He listened patiently, trying to find some clue to this insanity.

"Most people consider the Whimsies are part of a fairy tale," Ebon Vale went on. "For many years people have seen them here at night, bright flaming beings, and gone away thinking that they could not actually exist.

"Yet, the Whimsies are very much alive. Some say they are imps of hell, sent here to practice their mischief."

"And you?" Ray asked. "How did a girl like yourself get into this black mess?"

She leaned back against a stone that was higher than the rest.

"The Whimsies chose me because I had come here to live. They changed my vision so that I saw their world in this valley, not my own. Just as, in a like manner, they have changed you.

"The Valley of the Black Sun is as it is, because in your eyes as they now are, a vast curtain of cloud hangs over it. The sun filters through that screen changing it to a light that is not visible to the human eye. If you do not believe, look up."

Walters studied the sky above them. Far to the west a vast ball of blackness was sinking over the cliff. *The sun turned black as night.* Yet the valley seemed to responds to its light, sending shades of gray and black across the opposite wall.

"It will be night soon," Ebon Vale said. "Then the Whimsies will come to take their place here."

The blackness of the sun was gone. The girl stood up, looking pale and lovely against the wall.

"It's all wild—impossible," Walters confessed, "but I'm beginning to believe it. What of the Whimsies? I still know little of the part I am to play."

Ebon Vale's face grew tense. She stepped close to him and her hair, blowing in the dark air, swept from her neck and against his coat. Her arms reached up and around his neck.

"I am alone with you, a girl who is to be your queen," her lips were warm against his. He pulled his head away, startled.

"You still wish to know the part you are to play?" she asked, drew his head down again.

This time he did not force her from him. With the warmness of her pressed to him, lips soft against his own.

For a moment he forgot Gloria and the world he had lost only this afternoon. He closed his eyes tightly.

The depths of his eyeballs suddenly shot white hot fire into his brain.

There was daylight; bright, flashing sunlight in his eyes. He wasn't holding Ebon Vale. In the flashing intensity of the light that cut into him, he saw Gloria. She stood, arms about his neck, staring up at him beseechingly. Her expression of humiliation and sorrow sent him reeling backward. With effort he opened his eyes again.

Ebon Vale was still there, several feet from him, staring with fright at the man before her.

"Gloria!" he shouted. "I saw her. She was here, in my arms."

He was sure now, that Gloria was not dead. Whatever the spell that was upon him, Gloria was alive and suffering. He would for the time being, do as he was told. Later, when he knew something of this wild fantasy he faced, there would be time. There was the small comfort that when he wished, his longing could for a minute erase this

world in black and white and regardless of its terrors, bring back his own colorful surroundings.

"Okay, my queen," he said with a touch of sarcasm in his voice. "I'll behave myself from now on."

Did he fancy it, or was there a sudden look of intense hatred in the eyes of the girl who took his hand.

"We must go now," she said. "The Whimsies will be waiting."

THE queer black sun was gone. Scar Valley seemed asleep under a black drape of night. As Ray Walters followed the girl down the incline from the old house, he wanted to close his eyes once more; summon that vision of his own world. He thought of Gloria and that look in her eyes of horrified anguish. Ebon Vale had said she was dead. But she wasn't!

The road was short to the cliff. He followed Ebon Vale quietly, depending on her as he would a staff. He had been here before. He and Gloria had sat beneath these very trees, feasting their eyes on the green of the valley. It was changed now . . . dark and dead, like a flat photo in black and white.

He stumbled forward like a man in a deep dream. Ahead, on the face of the cliff tiny flashes of red flame flickered up and faded against the rock. There were more of them now, seeming to fly inward toward the rock wall—converging in a group around the large hole of a cave.

The girl turned, a smile on her lips.

"It will not be long," she whispered. "You need not be afraid."

At that moment fear was far from Walters' mind. Only a curious, dull feeling of distrust. A feeling that Ebon Vale, her body swaying ahead of him like a white torch in the darkness, was planning his destiny alone. The feeling that this world of black was of her making and hers alone. But in spite of every attempt he made to hate her, there came that overpowering attraction to her body.

The forest cleared and across a short stretch of black meadow a great hole opened into the face of the cliff. Through it poured a steady, darting stream of the red flashes he had seen against the wall.

"We are here," she stopped, took his arm and held herself close to him. "You may lead."

Walters crossed the meadow like a man led to his own hell and went down the sharp incline into the cave. Ahead was only blackness. It was broken by the steady flow of the fire-like Whimsies who darted through the air on all sides of them.

From below, warm air and the steady chatter of tiny, musical voices drifted up. He went down, Ebon Vale's hand still tightly clenched on his arm.

Then the cave opened wide and a huge chamber confronted them. Walters stopped short, his eyes wide with what he saw. The Whimsies *were* alive! They had sharply pointed little faces, tiny horns and paunchy bellies that appeared to have absorbed more than their share of food.

They were tiny folk, hardly more than eight inches tall. Their bodies were for the most part, feathery and brightly red. Long, arrow-pointed tails twisted behind them as they swirled through the air.

EBON VALE went ahead of him again, across the open cavern to a huge rock that was carved roughly to seat a human figure. She turned her face to him, sank back into the rock chair and motioned him toward her. The cavern was alive with the light of the Whimsies now. He went forward

and sank down beside her.

"You need not fear for your safety or your sanity," she said quietly. "Some would call these people my brain children. They are harmless."

The Whimsies seemed wildly excited now. They swirled into a tight circle around the pair and one of them settled to Ebon Vale's knee.

He was slightly larger than the others and his tail spread across her lap and dropped over the edge. He spoke, and his voice was loud and shrill, like a small child's.

"Our queen brings a visitor?"

She reached down and stroked the sprite's head gently.

"I bring you a ruler," she corrected gently. "He will stay with me and help with our affairs."

At once an angry shout went up around her.

"We need no king. Our land is well ruled by you. The affairs of the Whimsies are not for humans."

Ebon Vale held her arm aloft. Anger flashed in her eyes and for the second time, Ray Walters could swear he saw cruel sadism there.

"I wish this man to rule," she shouted. *"My wish is not to be questioned."*

The Whimsie on her knee turned to the flashing horde behind him.

"The valley of the black sun will be ruled as our queen sees fit," he squealed. "You will remain silent."

Returning his attention to Ebon Vale, he continued.

"There are affairs for our queen tonight," his tiny eyes flashed devilishly. "Hearts to be mended—fun to be had—worries are over—the Whimsies are mad."

The word mad—mad—mad went bounding around the cavern on the lips of the tiny throng.

"It's all a damned nightmare!" Ray Walters whispered to himself. *"A crazy, insane dream."*

His head was pounding with the shrill shouting in his ears. He closed his eyes tightly, trying to escape the sound. Then it happened again . . .

At once Ebon Vale was gone. The Whimsies were gone. In the girl's place, seated on the cave chair was Gloria Duncan.

HE WANTED to speak to her, but he couldn't. She sat there before him, in the empty black cave. Her lips moved and he knew she was begging him to free her.

"Take me home," the lips moved freely. *"Please, take me home before it's too late."*

"Too late for what?" he wanted to scream. Something bit sharply into his shoulder. His eyes snapped open with pain. The Whimsie had jumped from Ebon Vale's knee and plunged his hard, arrow-like tail into Walters' shoulder. The girl seemed to be waiting for him, still angry from her quarrel with the Whimsies.

"You are tired?" she asked. Her voice was edged with sarcasm. "I suggest that your eyes remain *open*."

"Yes," the Whimsie settled once more on her lap. "You'll be much more contented."

Something within Ray Walters rebelled.

He wondered suddenly why he had not fought his way out of here long ago. Why he had succumbed so gracefully to Ebon Vale's every wish? He was still sure that somewhere Gloria was waiting for him alive. If he could not force himself from the dream in any other manner, he'd fight his way out.

He stood up quickly, wondering what the reaction would be.

"You grow bored so soon?" Ebon

Vale arose, to stand before him with flashing eyes. "I suggest you cause me no further trouble. It was difficult enough to obtain you."

"Obtain?" Blind anger came over him. "I don't understand. Did you plan all this deliberately?"

He wanted to turn away. To go from the cave in spite of all she could do to prevent it. The slumberous passion that arose in Ebon Vale's eyes held him as though he were tied. She pressed against him and the warmth of the entire place seeped into his body. Her eyes seemed to drink from his own and as she stared, Walters realized that he was being hypnotized as surely as though he stared into the eyes of a cobra.

The intense desire to sleep came over him. The cave flashed bright with the flame of the Whimsies, and grew black before his eyes. In his sleep nothing troubled him. No visions of Gloria. No black sun.

LIKE a broken record, the voice said over and over:

"I am Akimba—I am Akimba—I am Ak . . ."

"Go away Akimba and let me sleep." Walters rolled over on the rough floor, felt a sharp twinge of pain in his shoulder and sat up. Rubbing his eyes he looked about.

He was still in the cavern, but the place was deserted. Or was it? What about Akimba, the troublesome voice?

He stood up and brushed the sand from his trousers. Yes, Akimba was there. He was the Whimsie who had sat on Ebon Vale's knee. The little red sprite who had ruled the works. Akimba fluttered down from his place on the cave shelf, hit the floor with a thump and strutted across the sand. Now that Walters had time to look him over more closely, the little chap wasn't half as hard to believe. He had legs that were feather-covered, and a small bare stomach. As he walked, he wobbled a little under the weight of his load.

"Too much honey," Akimba said wryly, rubbing his stomach. "Can't leave the stuff alone."

As insane as it seemed to talk with something one couldn't even believe existed, Ray Walters had no choice.

"Where is the girl, Ebon Vale," he asked. "The rest of—of you. Why are we alone?"

Akimba grasped his stomach and pulled it up to the position of an inflated chest.

"They're g o n e," he announced proudly. "I've been assigned to guard you. Three black suns have passed since you slept first. We are to go to our queen now that you have awakened."

The thought entered Walters' mind that here was an opportunity to escape. What possible chance would the tiny Whimsie have to hold him, once he decided to go?

"If you're looking me over with any thought of me being helpless," the sprite said suddenly, "perish the thought or it will perish you. My tail can get mighty poisonous when I want it to."

Walters chuckled.

"Smart little fellow aren't you?"

Akimba snorted.

"None smarter," he agreed. "I even had ideas of being king until you came along."

Hold everything, Walters thought. Perhaps there *is* a chance.

"Just what does this kingship consist of," he asked. "Now that I'm here, I'd like to know my duties."

"It ain't the job it used to be," Akimba's face darkened. "There was a time . . ."

He stopped suddenly, as though fearing to go on.

"There was a time . . . " Walters prompted. "Go on, tell me about yourself." Akimba settled down comfortably.

"If *she* finds out," he said with a glance toward the door, *"I'll* lose my neck. Well! What the heck, why not?"

AKIMBA talked fast, his tiny voice sounding like a badly tuned flute.

"The valley of the black sun was our home long before Ebon Vale came here," he started. "People have seen us for centuries. We do no harm in our cave and at a distance we just look like fireflies."

"But where did you come from?" Walters broke in. "What do you do here?" Akimba's eyes twinkled.

"Ever hear of Rip Van Winkle and the dwarfs?" he asked.

"Yes."

"Well, we're like the dwarfs," Akimba went on. "We were here from the beginning, and there just isn't any reason for us. We like it here. No one troubled us until Ebon Vale came.

"You see, she learned the magic of the black sun."

Walters was growing interested.

"How," he asked, "am I able to see your world and the black sun? When I came here before, I never suspected."

"That's a simple story," Akimba answered. "Ebon Vale is a strange woman. No, let me say she is the complex personalities of many women. She came here many years ago and in her heart was the secret of seeing things no other could see."

Walters sat down and crossed his legs. For a moment they were silent.

"Why?" Walters asked, "do you say she is a part of many women?"

Akimbo grinned wisely.

"Ebon Vale would have died a hundred years ago, were she not able to utilize the minds of younger women to preserve her own body."

The Whimsie's words left Walters thunderstruck.

"A hundred—years . . .?"

"Ebon Vale came here two hundred years ago. She came from an eastern country across the sea. She remains invisible until she wishes to regain more youth. Then, with her secrets, she draws young girls to her side and takes from them what she wishes."

In Walters' brain there surged the memory of Gloria Duncan. How, at times, when he closed his eyes, she and not Ebon Vale was before him.

Then this was the explanation. It was not Ebon Vale at all that was beside him, but Gloria Duncan, imprisoned within the Gypsy's body.

Akimba was growing impatient with the pause.

"Well," he asked, "what more does the mighty, but helpless king wish to know?"

"The black sun?" Walters begged. "Tell me about it. Why do I see it?"

Akimba shook his head sadly.

"That I do not know. It is some sort of spell that Ebon Vale casts upon you. I think you humans call it hypnosis. I understand little, except that without it we Whimsies would be rid of all you humans, and could dance about the cliffs to our hearts' content without bowing to a queen and king."

He spat the last words out as though they were very distasteful to him.

IN Ray Walters' mind a plan was slowly formulating. A plan that might be wild, but not nearly as fantastic as the things he had just listened to.

"How would you like to be free?" he asked suddenly. "How would you

like to be rid of both your queen and myself?"

Akimba's eyes danced with joy, then his face darkened.

"Can't be done," he said. "We've tried."

"Give me a chance," Walters begged. "I'd do anything to get out of this nightmare myself."

Akimba thought for a long time. His tail danced about restlessly.

"All right," he said finally. "Go ahead, and welcome. What do I have to do?"

"Just get me out of this place," Walters answered quickly. "Show me the way back to Ebon Vale's house and I'll do the rest."

"You can't find out her secret," Akimba cried. "She'll kill us all."

"How?"

"With her magic." Akimba was truly distressed. "She makes us bring her food, clothing. She makes us frighten all people away so that she may have the valley to herself. If we don't do it, she'll destroy the screen that brings the black sun and we will all perish."

"Listen to me, little man. This valley protects you and her, because your eyes are tuned to the screen that makes it dark and safe. To us humans who come here every day there is no black sun. It is the bright sun, splashing down on green and brown and all the colors of the universe."*

* Let no thought of fantasy enter your minds so far as the 'black sun' is concerned. There exist, beyond the approach of the human eye, certain light rays that are invisible. Experiments create *artificial* black light. Yet there can be no doubt that it is *possible* for black light to exist in a natural state; in other words, light that we cannot see with the eyes we now have, and yet would be clearly visible with some other type of eye.

Watch a dog some time as he stops suddenly in his track and starts barking loudly at some object that *in our eyes* does not exist. Is there any proof that it does not exist in the dog's eyes?—Ed.

Akimba was properly startled with this statement.

"You don't mean that Ebon Vale has been lying to us That she has no power over our world?"

Walters nodded.

"I mean exactly that," he said. "If you existed for centuries before she came, why should you depend on her now?"

Akimba stood up, stomping his feathered feet angrily.

"What are we waiting for?" he shouted.

RAY WALTERS was almost upon the old house before he could see it through the black mist that covered his eyes. Akimba, anxious and worried, he left behind at the cave door. Once, just before he opened the door to the old house in the valley, Walters closed his eyes. Sun flashed in them and the valley was green again. Daylight blinded him and he opened them quickly.

Somehow Ebon Vale's spell only partly worked on him. It was on her failure that he must depend. If, when the struggle came, could he close his eyes tightly enough?

The door opened protestingly under his hand. The huge room at the front was empty. He could hear a silvery voice, singing somewhere beyond the door. Opening it slowly he saw Ebon Vale as lovely as ever, standing with her back turned to him. She turned, as though sensing his presence.

He went to her, clenching his teeth. She tried to catch his eyes with hers, but he looked straight at her throat and riveted his gaze there. Her arms went about him, holding him close to her. For that next instant he fought off the desire to look at her face; her smooth cheek, her deep eyes.

A shiver ran through him and he re-

membered that this was not a girl, but a creature who ruled the valley with youthfulness stolen from others.

Closing his eyes tightly, he concentrated on seeing Gloria Duncan. He heard her gasp with surprise as his arms went around her waist. Then, as she screamed her hatred, he pressed his lips tightly to hers.

The brilliance of a thousand suns seemed to strike him directly in the face. Light tore through his head, pounding against every nerve in his body. He opened his eyes.

He saw Ebon Vale, as lovely as she had ever been. Her body, tense and fighting at first, gradually relaxed against him. Her eyes were vague in his sight. He could only see lips and soft, waving hair. The face changed. The pain went from his head and it was as though he was gradually awakening. Coming through the darkness into the light, and the light felt good once more.

He knew she was drawing him back and that she was no longer frightened, but determined. The couch was behind them, but before he reached it the face close to his began to change. The features of Ebon Vale faded. In their place were the blurred, lovable dimples, the faithful eyes of Gloria Duncan. He held her closer, breathing a prayer for what was taking place. Suddenly they were falling, together, through space.

WHEN Gloria Duncan awakened that morning in City Hospital, she was radiantly happy once more. She looked around her at the clean curtains, the spotless walls.

"Ray!" She raised her voice gently.

Walters sat beside her smiling. His eyes were covered with a bandage.

"Yes, Sweet. Feel better this morning?"

She sighed, stretching back comfortably on the smooth pillows.

"Much, Ray. I'd like you to tell me something."

For a moment fear ran through him. Fear for what she might know. He steeled himself.

"Go on," he urged. "Ask your questions."

Gloria sat up, leaning on one elbow.

"Doctor Saunders says they found us lying unconscious in each other's arms, on the river bank," she said. "How did we escape?"

"I think in the excitement I must have pulled you out of the water and then passed out," he answered.

She smiled at him tenderly.

"Doctor says I'll have these bandages off my eyes in a couple of days," he said. "I can't understand what happened to my eyesight. He says that I was stone blind when they brought me in. A film which he can't describe, is already fading away."

Ray Walters took her hand in his, after fumbling for it.

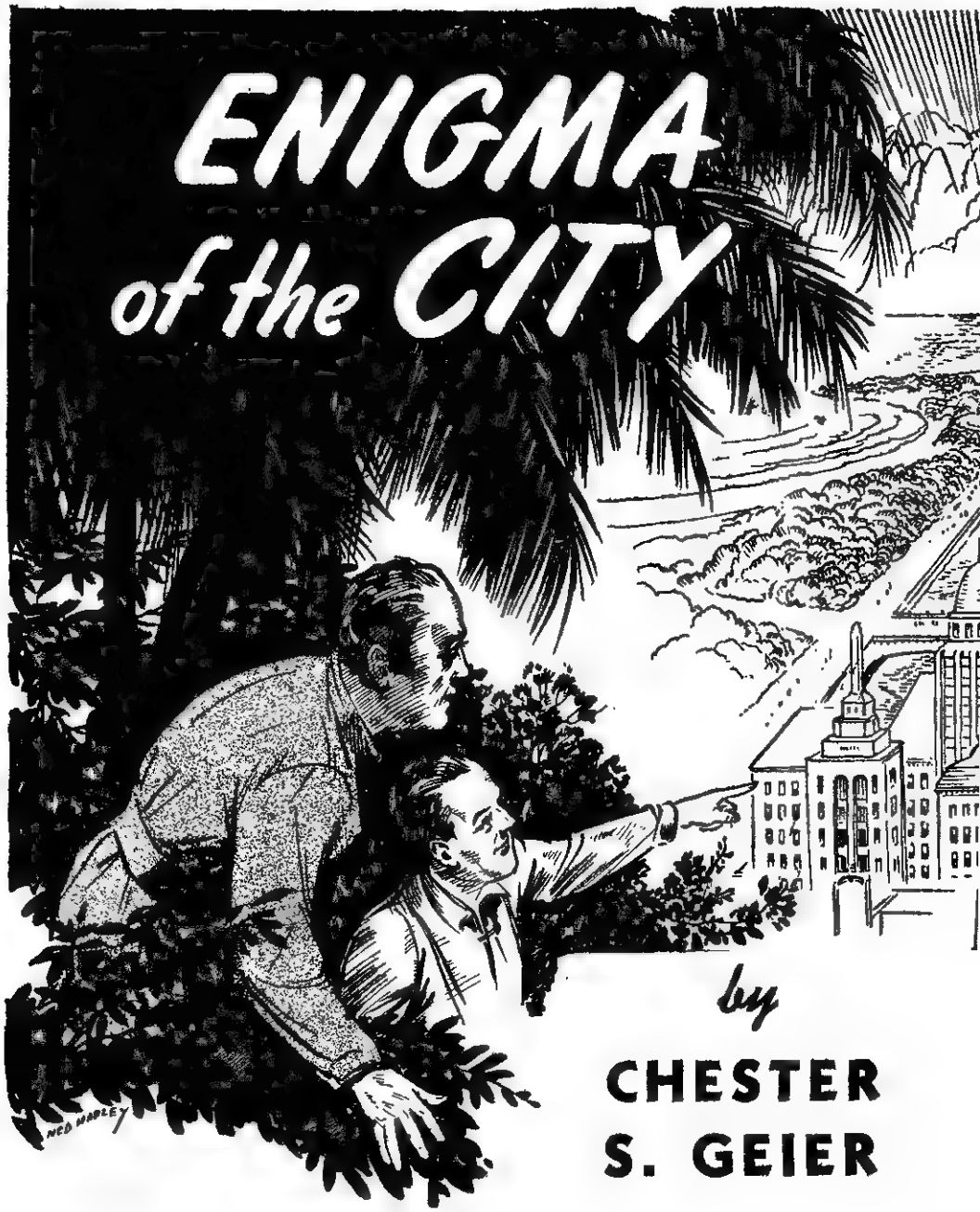
She said: "We're safe, the fortune teller was wrong, I *have* a future. That's all there is to it."

"I wish that *was* all there is to it," he said softly. "They couldn't locate Ebon Vale when they went for her. There was some talk about finding the body of an old, old woman in the house where she had been."

Walters held her tightly against him.

"It's like the old fables of the firefly Whimsies," he said. "You can't believe the things the old timers say about Scar Valley. It's a breeding place for myths."

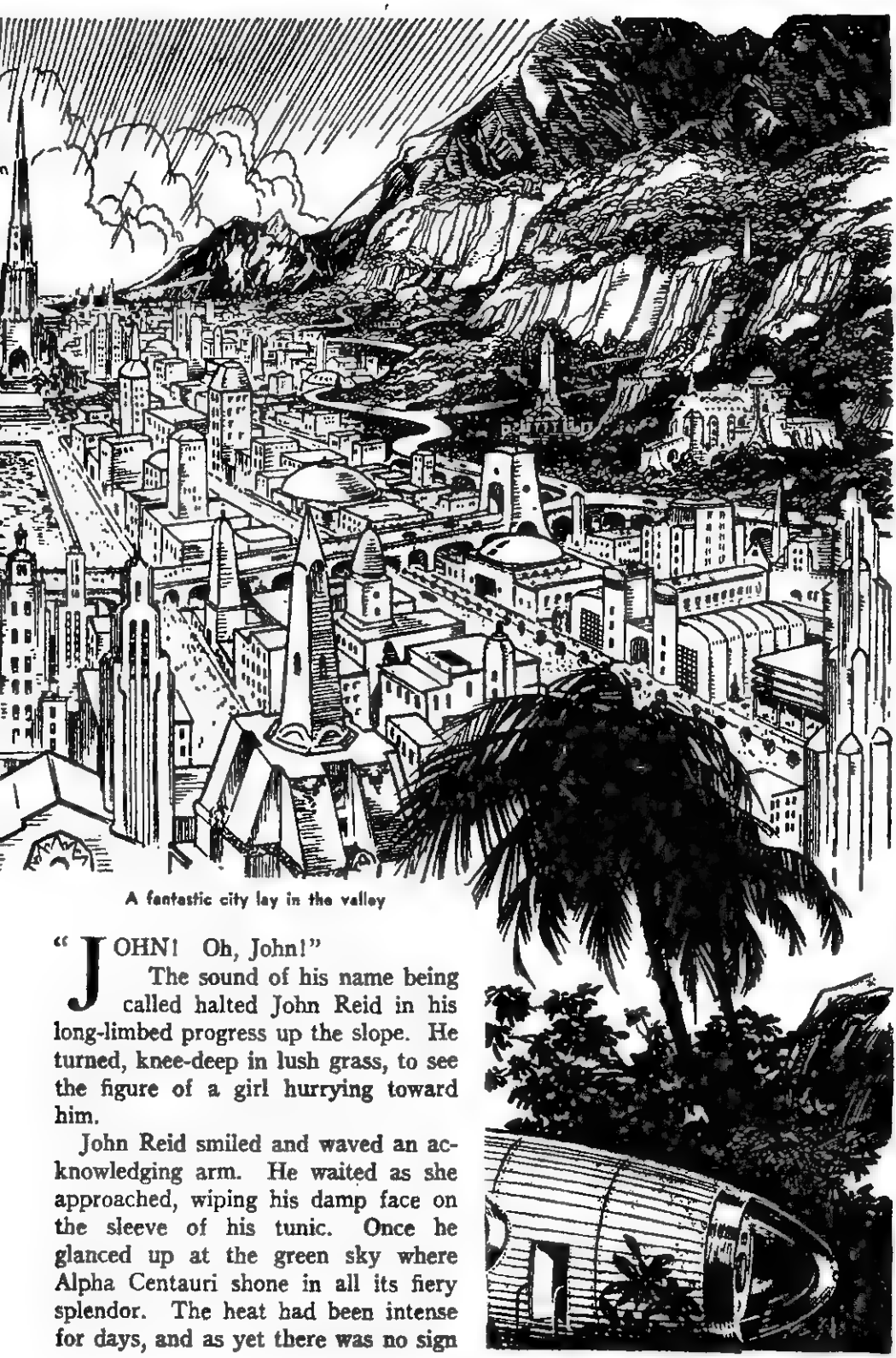
"It was odd," Gloria breathed as he released his hold on her. "I had sure a mess of conflicting dreams until I regained consciousness here. You know, I *saw* those Whimsies you mentioned . . ."



by

CHESTER S. GEIER

A new Earth civilization, free of wars, was to be founded here on this new world. So they staked everything on the voyage— and found that it was already populated...



A fantastic city lay in the valley

"JOHN! Oh, John!"

The sound of his name being called halted John Reid in his long-limbed progress up the slope. He turned, knee-deep in lush grass, to see the figure of a girl hurrying toward him.

John Reid smiled and waved an acknowledging arm. He waited as she approached, wiping his damp face on the sleeve of his tunic. Once he glanced up at the green sky where Alpha Centauri shone in all its fiery splendor. The heat had been intense for days, and as yet there was no sign

of the rain clouds which would bring relief.

In another moment the girl was standing before him, her small bosom rising and falling rapidly beneath her simple blouse. Perspiration beaded the tanned oval of her face and darkened her auburn hair where it swept back from temple and forehead. She looked up at him with grey eyes that were clouded with anxiety.

"Hello, Susan," Reid greeted, in the quiet tone with which he always spoke to her. "I was just going up to the *Parsec* to see how Doug Lain's coming along with the engines." He gestured up toward where the slope levelled off to a broad and grassy rise. Here, limned against the green sky, rested a great rocket freighter.

"You shouldn't exert yourself like that," Reid went on. "This isn't Earth, you know, and we've got to take things easy until we grow accustomed to New Terra's heavier gravity."

Susan Carew brushed his gentle admonition aside with a sudden rush of words.

"Any sign of the auxiliary yet?"

Reid shook his head slowly; the admiration which had glinted in his brown eyes from sight of her died away. "None," he answered in a voice grown curiously flat. "I've got lookouts posted on high ridges at four different points. They haven't reported anything."

"John, something *must* be wrong!" the girl declared worriedly. "Steve should have been back in the auxiliary days ago. What possibly could have happened to him?"

"I don't know, Susan. But look here, now, it's nothing to get excited about. Steve probably just went a bit further on this scouting trip than he usually does."

"Yes—but even then he should have been back before this! Don't try to put me off like that, John."

THERE was a moment of strained silence. Reid became suddenly aware that her eyes were searching his face. He looked away uncomfortably. He had meant to be reassuring, but from all indications something *was* seriously wrong. Steve Norlin had been gone eight days now which made him more than merely overdue. Reid knew that the scout always planned his trips with the exactness of a time schedule, and this delay might easily mean disaster.

Reid looked down at the tiny valley which lay at the foot of the slope, fighting down the weary bitterness which was flooding him. Steve Norlin. Always it was Steve Norlin. Was she blind?

His moody eyes came to rest upon the camp which lay sprawled down there in the valley, and something of calm and comfort came into them. It was a sight which never failed to bring him some measure of peace. Peace—and at the same time, unrest.

The camp was spread out with only the faintest suggestion of geometrical planning. At first glance, it resembled something that might have been built by a people whose degree of civilized development had just progressed beyond that of living in caves. It was crowded and noisy, poorly constructed, littered with all sorts of imaginable things, from tools and personal belongings to stacks of piled logs not yet trimmed for building. Completed houses, really little more than crude wooden shelters stood here and there, mingling with others just under construction, while in several places stood flimsy tents consisting of a length of cloth draped over a framework of poles.

Through it all, busily engaged at a multitude of tasks, moved a small band of some two hundred men, women, and children. These were John Reid's charges, the Arkites, as he had come to think of them, exiles as they were from a war-devastated Solar System. He thought in the same way of the *Parsec* which had brought them here to New Terra, not as the old, lumbering freighter it once had been, but as a great Ark bearing these last remnants of a once great species to a virgin world to begin life anew.

The Arkites had been in extremely difficult circumstances even while on Earth, and their present situation had been changed but little, save for he fact that the war which had menaced their lives had been left far behind. Their bodies were grimy and unkempt with toil, their clothing bedraggled and tattered. More than a few wore bandages about their limbs as mute evidence of their clumsiness and unfamiliarity with even the simplest of tools. They were thin, too, and had Reid looked carefully through the shimmering heat of Alpha Centauri, he might have noticed the sullen lines of discontent which were growing about their mouths and eyes.

BUT Reid did not see the crudeness and discomforts of the camp. Neither did he see the discontent just breaking into bud. He looked through the heat with a dreamer's eyes, and the vision he saw was one of glittering, sky-high towers and a people happy and wise in their greatness.

"You should have listened to Steve," Susan went on. "You should have had a radio installed aboard the auxiliary, so that if anything ever went wrong, we'd get to know about it in time to help."

The vision faded from Reid's eyes; the old bitterness crept back. "It wasn't absolutely necessary," he responded patiently. "Besides, neither the time nor the materials could have been spared in setting up a radio system. There's no telling what kind of weather we'll be having on this world, and it's imperative that we get the camp set up and organized as soon as possible. Everyone and everything we have is needed for that."

Susan pushed back a stray lock of auburn hair with a work-roughened hand, her red mouth set stubbornly. "I know that—but it seems to me that in your concern for the others you might have a little more consideration for Steve. He's doing by far the most dangerous work of us all, and it's only fair that—"

She broke off suddenly; her voice softened. "This is a strange, new world, John, and there are so few of us here. . . ."

"Of course," Reid muttered. He bent down suddenly and plucked one of the spear-like blades of the grass that grew about him. He felt angry with himself, and a little ashamed. He knew that his face had gotten that look of a jealous, small boy as it always did when Susan spoke of Steve Norlin.

Reid frowned down at the blade of grass in his hand, running a calloused thumb along its serrated edge. Trouble was, he was almost old enough to be her father. Why, streaks of grey were already beginning to appear in his crisp, black hair. He was a fool for ever daring to imagine that Susan might be interested in him. An old fool.

Steve Norlin was young and handsome. He had all the necessary dash and charm. He knew how to act around women, knew all the clever and witty things to say. Reid felt his own deficiency in this respect acutely. He'd

been too busy all his life to cultivate the social manner. There had been so many other things to do. . . .

He tried now, as always, to tell himself that Susan didn't really matter. He was already well started up the path that led to final realization of his dream, the vision which had kept him inspired through the long, hard years. That was all that counted now—final realization of the dream.

But he glanced up from the blade of grass and looked at Susan, and now, as always, he knew that the final realization would be all the sweeter if she were there to share it with him. This small, rounded girl with her wealth of auburn hair and her cool, grey eyes was the embodiment of certain other dreams, of which up to the time of meeting her, he had been too busy to become fully aware.

"I've got to go," Susan said abruptly. "I've got a lot to do." She turned from him; her grey eyes refused to meet his brown ones.

"Of course," Reid muttered again. The bitterness crept from his eyes and hardened around his mouth as he watched her go. Her purposeful figure went quickly down the slope and toward the camp. Soon it was swallowed up in the general bustle of the Arkites.

REID stood alone upon the slope. Up in the green sky Alpha Centauri was beginning to edge down toward its resting place behind the tremendous mountains that lay to the north. It was nearing evening now, with the swiftness with which days passed on New Terra. The heat still held, thick and oppressive.

Memory of his intention to visit the *Parsec* came back to Reid; he crumpled the blade of grass in his hand, then let it drop to the ground as though it were a hope he was reluctantly casting aside. He resumed his journey up the slope, but something of the litheness of his earlier progress had gone.

It was not until he was several yards from the ship did Reid notice the lank, bony form of Doug Lain standing just within the airlock. Lain was wiping his hands on a bit of oily waste, and his long, seamed face was expressionless.

"Oh — hello, Doug," Reid said, faintly startled. "Thought I'd come up to see how you were getting along."

"I saw you talking to Susan," Lain said quietly.

"Why, yes. She wanted to know if the auxiliary had been sighted yet." Reid looked at the other with a trace of defiance.

"That isn't quite what I meant," Lain said. His features softened momentarily, and he gave Reid's shoulder a gentle punch. "Wake up to yourself, John. If she can't see that you're worth two of that Norlin Don Juan any old day, then she's not worth the trouble of running after."

"It's not that. It's just that she's young, and I'm—well, I'm pretty well along, Doug."

Lain threw the bit of waste aside with an abrupt gesture. "That makes little difference, John. I know she's pretty—but you want a woman who has a sense of values, too. Norlin's a slacker. You know we had to give him that job of scouting in the auxiliary because there wasn't much else he could do. And he's just vain enough to go around boasting about it. Danger, adventure—hell! The auxiliary's safe enough, and even in the event of a forced landing he'd be just as safe as though he were right in camp. We've seen enough of New Terra by now to know that its animal life hasn't developed far enough even to be re-

motely dangerous. Norlin's a trouble maker as well, mark my word."

REID nodded slowly; this last applied in his own case, at least. And more than once he had wished that he could find the necessary time to take over the scouting trips himself. Norlin was wasting too much fuel in searching for a site on which the Arkites could build a permanent settlement. There were any number of suitable locations which he might have missed.

But Reid shrugged these regrets aside; he turned to a more pressing problem.

"Have you found out what's wrong with the engines, Doug?"

Lain shook his head with something of disgust. "No results again," he grunted. "John, we'll never learn what caused that strange shake-up unless we take the engines apart bolt by bolt."

"I can't imagine what could have caused it," Reid said slowly. "I'm perfectly certain there was nothing wrong at my end. When the distance gauges showed that we were within Alpha's system, I began to cut power from the field in just the gradations indicated by our stress-relaxation formulae. There was nothing wrong with these; I'd checked and rechecked them often enough during the trip. The meters showed the propelling warp to be folding in normally enough. It was almost gone, when — *blam.* I thought the *Parsec* had turned inside out."

"Almost did—the old tub!" Lain growled. "I was tossed more than a dozen feet. Well, I guess the only thing that remains to be done now is to disassemble the engines. I'd never trust using them again without knowing just what was wrong."

They stood stilently together upon the rise. Except for essentials, there was little need for words between them. Their bitter struggle through the years had forged about them an unbreakable link of friendship.

It was a friendship which had begun at the university which both had attended during that turbulent last decade of the 26th century, when Earth and her rebellious subject worlds were rushing toward the brink of that terrible struggle later known as the War of the Planetary Secessions. It was a friendship founded on a mutual dream—interstellar travel.

To Doug Lain the dream had been one of finding a solution to the problem of crossing interstellar distances. But to Reid it had had more deep-reaching significance. He saw interstellar travel as the harbinger of a mighty galactic civilization, and, in its more immediate results, as something which would avert the conflict which then threatened.

All the habitable portions of the Solar System had become overcrowded; man's last frontiers had fallen before his restless advance. There was seemingly nothing left in nature against which to pit his wits. So he had taken the only other outlet for his restless energies — he had invented quarrels with his fellows.

Earth's colonial possessions, which had been satisfied with the Solar Federation for over two hundred years, had been clamoring for their independence. Reid realized that it wasn't really this that they wanted. It was new fields to conquer, new outlets, new resources. Given the opportunity to spread out to the stars, they would quickly forget their petty quarrel with Earth.

BUT the problem of interstellar travel was a tremendous one.

Somehow, a method had to be found which would enable the voyages to be made in as short a space of time as possible. They found the answer, finally, in Truman Varne's "Supercosm" that vast and ingenious work which dealt with hyperspace as a higher extension of our three dimensional universe. Working from Varne's theory and formulae, they had begun work upon a hyper-spacial drive.

But they had hardly progressed as far as building the first small warp-generating engine when the war broke out in a sudden flareup of furious violence. In one stroke, Mars had seceded from the Solar Federation and taken over all Federation bases and Interplanetary Ranger stations within reach. A short time later all the other outer planets followed her example, leaving Earth, Venus, and Mercury facing a coalition of terrible, ruthless power.

Reid and Lain had worked feverishly while that titanic struggle raged about them. At first they had entertained the hope that the introduction of interstellar travel would bring about peace. But as the war progressed the hates and bitternesses between both sides became so deep-seated and virulent that they had finally come to the sombre realization that nothing less than the complete extermination of one or the other would bring an end to the conflict.

By the time Reid and Lain perfected their hyperspatial drive engines, the Earth had lain in ruins. They themselves had escaped destruction only because they had hidden their laboratory deep in a wild and unfrequented portion of the Adirondack mountains.

Only one thing had been left to do, and they had done it. In the *Parsec*, that old rocket freighter which they had long ago secured as an adjunct to their experiments and within which they had now installed their hyperspatial drive engines, they combed Earth's devastated cities for the materials necessary for the start of a new civilization. From roving bands of refugees they had selected the best physical specimens of mankind still left, always on the alert for scientists, teachers, doctors, engineers. Then they had made a careful search for books, tools, food, and clothing. When they had gathered all of this available, they had departed for Alpha Centauri, leaving forever behind them the ruins and barbarism of what had once been a mighty interplanetary civilization. The trip through hyperspace had been uneventful enough, with the minor exception of the strange shake-up that had occurred when they had reached Alpha Centauri's planetary system and emerged once more into normal space.

DOUG LAIN'S dream had been achieved. But his was the soul of an adventurer who, having overcome one problem, goes forever onward to meet the next. Hyperspace still presented many mysteries; Reid knew that Lain would be occupied with these for many years to come. As for himself, his dream lay down there in the valley, with the first crude Arkite settlement on New Terra.

Reid's interest had always been in people. Not people so much as individuals, but people as a race, a civilization. His vision of an interstellar culture had long since tumbled into dust, but out of it had arisen something deeper and finer, more personal. It was the dream of a new civilization —one that had carved out its own beginning from the stubborn crust of a new and virgin world. Though he knew he would never live long enough

to see it reach the pinnacle of its glory and greatness, he found satisfaction in the knowledge that it would be himself who, with his own hands, had given it the impetus which had sent it upward.

The shadow of the *Parsec* was long upon the grass; the great, bloated disc of Alpha Centauri was almost touching the topmost peaks of the northern mountains. Down in the camp the first fires of the evening were being lit. But the coming of night brought no relief from the heat; it pressed down, thick and mostly humid.

Lain yawned and stretched his long, lean arms. "Well, it's food and then bed for me. I'll get back to work on the engines in the morning."

Of a sudden, he stiffened, gripping Reid's shoulder. "Listen!" he hissed.

A man's cry, dim and far away, had sounded in a signal upon the air.

"The auxiliary!" Reid cried. "It's coming back!"

Faintly at first, then louder and louder, the *putt-putt* of a rocket motor made itself audible. Silence had fallen heavily over the camp; the Arkites were standing like frozen statues among their fires, peering up at the darkening sky. In the west a tiny streak of flame became visible. It grew swiftly brighter until at last the auxiliary was circling the camp preparatory to landing.

"Come on!" Reid barked. He set off at a bounding run for the spot where he knew the auxiliary would come down, a charred expanse of meadow that Norlin always used as a landing field. The Arkites were already running in the same direction, their voices swelling into a clamor of excitement.

THE airlock was already open by the time Reid and Lain reached the little ship. In the dusk they could make out the figure of a man just emerging.

Steve Norlin waved nonchalantly at the gathering crowd as though nothing at all had happened. His strong, white teeth flashed in a confident grin.

Panting, perspiration trickling down his face, Reid looked at the scout. In that moment he was struck as forcefully as always by the neat, almost immaculate appearance which Norlin somehow managed to keep up. His pilot's uniform was just as natty as it had been back on Earth when he was earning a living shuttling passenger rockets through the stratosphere. It fitted just as snugly, too, over his tall, lithe form with its broad shoulders and narrow hips. Norlin pulled off his flying helmet, and his bronze hair, just a shade darker than his skin, tumbled in curls about his forehead.

"Where have you been?" Reid demanded. "Why were you gone so long?"

"Easy, skipper, easy! One question at a time, please." Norlin held up a mockingly imploring hand. He dropped it suddenly; there was an eager cry of "Steve! Oh, Steve!" and Susan came running into his arms.

Sight of the two embracing was a raging fire in Reid's heart; he looked away, biting his lips. But as though under the pressure of something vastly important, Norlin cut the reunion mercifully short.

"All right, baby, save it for later. Papa's got news right now." He released the girl. He looked at Reid, then at the Arkites standing all around.

"Folks, the reason why I've been gone so long is because I've made a terrific discovery." Norlin leaned forward, his eyes glistening. "I've found a city here on New Terra!"

Silence dropped over the meadow, a

complete and utter silence. It was as though the air had vanished to be replaced by the chill vacuum of interstellar space, taking away all sound, freezing all motion.

The figures about Reid blurred crazily. A sudden, unexpected slap in the face from Doug Lain couldn't have stunned him more.

A city—here on New Terra! It meant that the planet was not, as he had hoped, uninhabited after all. The disillusionment was as bitterly keen as though some object of a life-long quest had turned to dust in his hands; for it spelled the destruction of all his plans.

Reid forced his shock aside. The Arkites had gotten over their own amazement at Norlin's announcement, and their voices now rose in an excited babble of sound. Reid could feel their eyes upon him as they watched for what action he would take.

He looked at Norlin. The words were difficult to form, but he got them out.

"Where is the city?" he asked. "What—what is it like?"

NORLIN grinned as though the question had called forth some mysterious inner satisfaction. He was facing Reid, but when he spoke, it was more to the Arkites who were eagerly pressing forward.

"Remember that great ocean to the west that I discovered on my last trip?" he began. "Well, I'd have no more than a glimpse of it, and this time I decided to go clear across to see what lay beyond. That spread of water is big; even with the auxiliary eating up the miles the way it did, it took me a long time to get across.

"This world seems to be made up mostly of mountains; the country I found on the other side was no better, except that the peaks there towered higher than any I've yet seen. There wasn't much use in crossing them, since I'd have had to keep to the stratosphere most of the time where accurate observation would have been impossible. So I flew along the shoreline with the hope that somewhere along it I might find a comparatively level area which would enable me to get inland.

"It was a lucky thing I did, too, though I almost gave up several times. That shoreline seemed endless; I followed it for the greater part of two days. And then, suddenly, the shoreline and the mountains which paralleled it curved inward to form a tremendous bay, and within this, dim on the shores of its extreme end, stood the city."

Norlin paused, and though Reid knew that the scout's nature was not sensitive enough for a true appreciation of beauty, he could have sworn that a vast awe glowed in the other's eyes.

"Sight of it so startled me," Norlin continued, "that I almost lost control of the ship. I landed in a convenient canyon just within the bay, and then climbed a high ridge for a better look. The city is something to see, I can tell you. Even at that distance, it was a thing of soaring spires and mighty domes that gleamed with every imaginable color. And the location is ideal; in fact, it's just the spot I'd have suggested as a site for our own settlement.

"It was already about time that I started getting back to camp, but I couldn't leave without learning more about the city first. I decided to approach it for a closer inspection, without, however, using the auxiliary, since I thought it safest not to be seen. I packed a two-day supply of food and then set off along the shore.

"But I was fooled all the time; the city was much further away than it

had seemed. It was so big that its size had merely made it seem close. In a day and a half of almost constant traveling I got no nearer and so had to give up. I'd already been gone too long. But I did learn one thing—the people who live in the city are a lot like us. I saw a few working on outlying farms in the distance, and I watched them long enough to make certain that they are erect bipeds like ourselves."

Norlin gestured. "Well, that's about all. I returned to the auxiliary in the canyon and flew back here."

THE figures clustered on the meadow were very still. It had grown dark; Alpha Centauri had set behind the northern mountains, leaving only a few crimson streaks in the sky. The heat pressed like a blanket over everything. Somewhere the voice of a child sounded in a plaintive cry of hunger.

Reid glanced covertly at the Arkites near him, and suddenly he felt a sinking sensation. Their faces were dim in the dusk, but he could make out unmistakably the hope and eagerness which glowed upon them.

Reid turner back to Norlin. "In the morning we'll service the auxiliary, and then you'll fly me over to see the city. As for the rest of you, you'll remain here in camp and continue your activities as though nothing had happened." His voice was harsh and authoritative.

The Arkites woke suddenly back into sound and motion. They started back to camp, gathered thickly about Norlin, their voices making a din of eager questions. Reid remained behind on the meadow with Doug Lain, thinking with a detached bitterness that the ruin which Norlin's discovery had brought to his plans had, on the other hand, made the scout a hero in the eyes of the Arkites.

"What a rotten break!" Lain muttered. "All along we thought we were the only ones on this world, and now, after all we've done, we find out different. A city! That means civilization, John—intelligent beings." He paused a moment. Then his voice sounded again. "Well, what do you intend to do now, John? This end of the affair was always more yours than mine."

Reid looked up to the stars which glittered in their strange constellations in the sky. His tones were heavy with weariness.

"We'll have to start all over again, Doug. You know that I've always wanted to do something with people as a civilization. Back on Earth, I'd hoped that our invention of interstellar travel would pave the way for a mighty galactic culture—but the war ended that. Here on New Terra I saw my chance to get civilization started again. With a settlement near all the necessary resources, with books and teachers, I'd hoped to give the Arkites one great push would keep them going forward for all the years to come.

"But discovery of the city has changed all that. The Arkites remember only too well the easy life they led on Earth before the war. Machines did all their work; the merest push of a button satisfied every want. Norlin's city offers many temptations—especially so since the people there seem to resemble ourselves. The Arkites would want inevitably to live in the city. Once there, they'd lose their identity as a race, become submerged in another culture. There might be intellectual differences, too, which would lead to war and death. No, Doug, we'll just have to leave New Terra. On some world circling another star, we'll begin all over."

"But do you think the Arkites will want to leave New Terra, John?" Lain

asked slowly. "The city does offer many attractions, as you've said. They've suffered a lot already, and they may not want to go through it again."

"I'm sure they'll see it my way," Reid answered. "They must have enough pride of race left to want to build a civilization of their own."

BUT Reid felt a return of his earlier premonition. For the first time he wondered just how far the Arkites would follow him up that long, hard road which led to a new beginning. He realized now that his dream could not possibly appear as rich and real to them as it was to him, so that they would make every sacrifice to give it substance. They lived too much in the present, were too concerned with the comforts of their bodies and the satisfaction of their petty desires to give their all for a vision as intangible as the very air they breathed.

Reid shoved these doubts aside for the present. He touched Lain's arm, and together they walked toward the camp, bright now with its supper fires.

Morning dawned with the sky as brightly cloudless as ever. The rays of Alpha Centauri struck down with a heat whose intensity was almost like the impact of something solid.

After breakfast, Reid, Lain, and Norlin began their task of servicing the auxiliary. Shortly before noon, they were finished, and after supplies had been loaded aboard, Reid and Norlin were ready to leave.

"Too bad there's no room for you, Doug," Reid said. "I'm sure you're curious enough to want a look at the city yourself."

Lain shrugged his bony shoulders. "I can do without it, I guess. Wouldn't be much sense in just taking a look at it, anyway." He looked significantly at Reid.

Norlin's head popped out from the airlock. "We're all ready, skipper. Let's go!"

Only a few Arkites had come to the meadow to see them off. The others had remained in camp where there was shade from the fiery heat of the sun. Reid took his place beside Norlin in the tiny control room and they blasted off.

It was one of the few times Reid had been up in the auxiliary, and he absorbed himself in watching the landscape crawl away far below. He said nothing to Norlin; the scout himself was preoccupied with thoughts of his own.

By evening they were within sight of the western ocean, and when night fell the continent they had left was far behind. The steady drumming of the rockets and the peacefulness of the star-strewn night through which they sped lulled Reid to sleep. When he awoke it was to see the sun edging above the watery horizon and lighting the sky with its first, feeble crimson rays.

Norlin pointed through the forward observation port. "We're almost there. You can see the tips of the mountains beginning to appear."

Reid nodded, then watched them swell into size. Soon they were within sight of the white sand of the shore, and Norlin sent the ship slanting downward to take up a course parallel to it. In the afternoon of the third day out, Norlin leaned suddenly forward in his seat, peering ahead tensely.

"The bay!" he announced, after a moment. "See it?"

REID narrowed his eyes against the glare of the sand. In the distance, the white ribbon of shoreline ended as suddenly as though cut by a knife.

"That's where the shoreline curves inward to form the bay," Norlin ex-

plained. "Great cliffs rise out of the water on the other side of the inlet."

Shortly they were entering the inlet itself. This was nothing more than a vast slit in the mountains which towered up fifteen miles and more on either side. Reid gasped at the vista revealed. The bay was a vast one, enclosed on both sides by sky-high peaks. But it was not this that held his attention. His eyes were fixed upon the multicolored towers and domes that glittered at the opposite end.

"There it is!" Norlin said. "Want me to land now?"

Reid took a deep breath. "No. I'd like to get as close as possible. Skim a hundred feet or so above the shore until we're within sight of the farm lands you spoke of. If you hug the mountain walls, we won't be seen."

Norlin sent the ship down until the blast from the underjets was churning the sand. He cut speed for a more cautious approach. Reid watched the city grow, every atom of his being concentrated upon the sight of it.

"There's the farmlands," Norlin said, finally, pointing ahead.

"Land, then," Reid answered.

Norlin landed on the shore close to the mountain wall. He and Reid left the ship, then climbed their way up to a convenient ledge of rock. They looked in silence.

Reid's face softened into lines of deep admiration at what he beheld. The city was like a jewel in a flawless setting.

It rested on a tremendous plain, within a semi-circle of titanic mountains. At its foot spread great farmlands, a vast patchwork of green, yellow, and brown. Mighty forests rolled away on either side.

The location, Reid thought, was not only ideal; it was perfection itself. The dwellers in the city could look out to the waters of the bay. They were sheltered and protected by the mountains. They had ready access to timber and ores. Reid felt a depthless sorrow that this could not be for the Arkites. He knew that even though a lifetime were spent to accomplish it, it was not likely that he would find another spot like this.

DOMINATING the scene was the city itself. It was still too far away for Reid to make out any amount of detail, but he knew the heights to which the mountains towered on New Terra, and from the way the city balanced those that soared into the sky behind it, he knew that it was very big. And from what little he was able to make out, he knew that it was very beautiful. His eyes followed the tracery of delicate spires and leaping arches, and he felt at once a deep sadness and a great respect that another people could build so well. He turned away, embittered.

"Look," Norlin said suddenly. "Let's go down there. Let's go into the city." His eyes were eager and reckless.

Reid shook his head with sombre slowness. "No. We can't do that."

"But why?" the other protested. "There's no danger. There can't be any danger. People who can build a city like that just couldn't be bad."

"No!" Reid said again. He faced the scout squarely. "Norlin, it's about time you awoke to the realization that this city is not for us. The people who built it have made real their own racial dream of power and greatness. We must leave them to their glory. It would not be fair either to them or to us to share in it. We are another, different race—and at one time a mighty one. We should have enough pride in this knowledge to build and achieve for ourselves."

Norlin's face was bewildered. "I

don't think I get you, skipper. Do you mean we're never going to have anything to do with the city or the people who live in it?"

Reid looked away, nodding. "And not only that," he said huskily, "but as soon as we get back to camp, we're going to pack everything into the *Parsec* and leave New Terra."

"*What!*" Norlin's shout was a cry of utter amazement. "But that's insane, skipper. It's positively stark, staring mad!"

"Nevertheless, it's the thing we're going to do."

"Now look, skipper, you must surely know of the hardships we've all gone through in camp. We're all soft—I might as well admit it. We're not frontiersmen, and haven't been for over two hundred years. That kind of life is killing us—and it will kill a lot of us before we get a permanent settlement established elsewhere." Norlin became desperately pleading.

"To space with racial achievement, skipper! It's ourselves, here and now, that counts—not those who come after us. They wouldn't appreciate it anyway. Down there is an advanced city, inhabited by people like ourselves. Why, all we have to do is walk right in and make ourselves at home! There just isn't any sensible reason for passing up an opportunity like this to go to another world and suffer all over again."

REID whirled on the scout, eyes blazing, his body shaking with fury. "Well, by all the powers, if that isn't the vilest bit of drivel I've ever heard." His voice became slow and concise with contempt and loathing.

"Gone soft? Gone soft, hell! It's just that you've all gone rotten lazy to the core! You've pushed buttons so long that you can't get your mental patterns adjusted to any other system of behavior. You've actually degenerated to the point where you'd be willing to crawl over to another race on your bellies, whining for the food and shelter that you're too shiftless to obtain for yourselves.

"Well, I'll change that, all right! If you all have lost your pride and ambition, I've got more than enough for the lot of you. I said we're going to leave New Terra—and we're going to. I said we're going to build and achieve for ourselves—and we're going to do just that. And I don't want to hear another word to the contrary, understand me?"

For a moment Reid's angry eyes locked with Norlin's sullen ones; then the scout's gaze dropped, and Reid made his way down from the ledge and back into the auxiliary. Norlin paused to throw a last, lingering look toward the city. When he turned to follow, his brows were drawn together thoughtfully.

The return trip was made in strained silence. Shortly after noon of the sixth day, they were back in camp.

Reid found conditions in a bad way. The rains still hadn't come, and the terrific heat of Alpha Centauri had made its effects felt heavily. A strange fever had broken out in camp, and almost a dozen Arkites lay sick with it. The spring, which was their source of water had dried up, and now arduous trips to a distant lake had become necessary. Those of the Arkites who had yet the strength to move about were listless and dull-eyed, sullen.

Reid told Lain of what had taken place during the trip. Lain's bony face grew sombre.

"John, you'll remember that I've warned you of Norlin being a troublemaker. There's no telling what he may do now. Things have gotten so bad

here in camp that the Arkites would grasp at almost any opportunity offered them."

"What do you mean?" Reid asked, frowning. "You aren't suggesting that Norlin and the Arkites will go running off toward the city, are you?"

"Not exactly, John. Look here—wars have been fought over issues less great than the present one; the Solar System itself was destroyed over an empty ideal. The Arkites have suffered enough already. What you're asking now will mean sure death for a lot of them. You just can't expect them to follow you that far. Then what other course of action is left for them to take?"

"REBELLION?" Reid whispered. His voice rose in a sudden burst of impatience. "But, good heavens, Doug, civilization is founded upon blood and sweat! They're to be expected; you can't built without them. Perhaps a lot may perish in the building—even I may be among them—but what does it matter, provided that something has been accomplished in pushing the race a step or two nearer toward its goal of glory and greatness?"

"I know that, John—but do the Arkites see it that way? Greatness and glory are meaningless to them in their present situation. What they want most is decent food and shelter, cleanliness and sanitation. They know they could find that in the city." Lain took a deep breath; his eyes dropped to his feet. When he spoke again, his voice faltered.

"John, I'm afraid that we've both bitten off more than we were able to chew. We thought we could play Gods with the Arkites, but we haven't been very successful. Not for many, many years to come could we provide all the comforts and conveniences that the city offers now. Maybe—maybe it's best if we were to go to the city."

"Doug—you too!" Reid's cry was agonized, as though wrung with sudden, terrible pain. He grasped Lain's arms, staring at the other with wide, incredulous eyes.

And then his hands dropped to his sides. He stepped back, his face a hard mask.

"Doug, not even your doubt will turn me aside from the goal I've set for the Arkites. It's the right one and the only one, and if neither you nor they can see that, then you're only making things harder for yourselves. Because reach it we must—and shall. I won't permit a small thing like comfort for a present few to stand in the way of the future of our race."

"John, wait!" Lain held up an imploring hand. "I'm not doubting you. I was only suggesting the only alternative to the present situation. I followed you this far—and I'll continue to follow you, you know that."

Reid turned aside with steely purpose. "So much for that, then. We're leaving New Terra, and that's final. You and I will get to work upon the engines immediately. And as for rebellion among the Arkites in the meantime"—and his lips thinned against his teeth—"I'll take care of that!"

REID mounted the slope and vanished into the *Parsec*. When next he appeared in camp, the ominous shape of a blast-gun was strapped to his hip. Eyes widened at sight of the weapon, then grew narrow and vengeful. The Arkites gave way before him wherever he went, as though he had suddenly become something alien and deadly.

Reid said nothing in explanation as to the appearance and purpose of the weapon. His watchful eyes told him

that the Arkites knew. He gave terse instructions for the partial dismantling of the camp, and the packing up of tools and supplies. Then he started once more for the *Parsec* to aid Lain in overhauling the engines.

"John, wait a moment."

It was Susan, waiting for him just at the edge of camp. She indicated the blast-gun on his hip.

"Why are you wearing that?"

"You ought to know. You've seen the way things are shaping up in camp. Have you come to tell me that you wouldn't scratch my eyes out for the chance to go to the city and live a life of luxury and ease?"

Her grey eyes were dark. "Not exactly. But—but if I were to tell you that, would you believe me?"

"Believe you?" Reid snorted disdainfully. "Are you trying to make me think that you'd be willing to pass up this chance to get back to the easy life you've known—pretty dresses, perfume, jewelry—all the other things a woman loves?"

"Yes," she answered, very softly.

"Susan!" Reid grasped her by the shoulders, his fingers biting deep into the soft skin. "Look at me, girl! Are you playing with me? What do you mean?"

Her solemn gaze met his bewildered one. "John, do you know what I was before the war? A deb—a silly playgirl. My father had loads of money, and there was never a thing I had to do. I wasted my time in a constant round of wild, foolish parties. But the war and the life here on New Terra both have taught me something. I discovered a purpose in life, a reason for being. I've had to work and suffer with the rest—but, John, I've enjoyed it! For the first time in my life I was doing something real and vital. I was actually *useful!*"

"Yes, but I don't see—"

"Wait. John, I'm probably one of the very few here who really believes in your dream. I want to see the foundation laid for a new and better civilization. And I'd be willing to work for it, for I've found happiness in working, accomplishing. But the others don't and just can't see it that way. They've suffered terribly—more so, lately, with the heat and the drought. They know, if they left New Terra, that they'd have to suffer again—perhaps more intensely on another world. They can't take any more; they're cracking up now. And I can't bear it, John!" Susan's flow of words ended in a sudden sob. Her small face grew appealing; her lips trembled.

"I don't care for myself," she went on. "But I can't and won't let them suffer any more. They're whispering about revolt down in camp. Oh, of course, I know about it. And I can't let that happen, either, for it'll mean hurt and death to many." She paused; her grey eyes went dark again.

"John, I know how you feel about me. It's so obvious— Look, then, if—if I gave myself to you, would you take the step necessary to avoid further suffering, and possibly bloodshed? Would you allow the Arkites to go to the city?"

REID stared at her, numb with shock and amaze. "You—you'd give yourself to me—for that?" he asked huskily.

"Yes, John."

"But you love Norlin!"

Her eyes dropped to her roughened hands; her head nodded slowly. "But he doesn't enter into this," she said suddenly, looking up. "It won't make any difference. I swear I'll be just as faithful—"

Reid was a statue of stone to whom words were useless. Susan's head bent again, and she bit her lip while tears crept from her eyes to tremble at the ends of her long lashes.

Reid looked down at the bowed, auburn head and the small shoulders shaking beneath their soiled blouse. He knew a sudden, overpowering urge to take her in his arms and hold her close. But he knew this could never be, and he turned aside. The sad, sweet melody which played in his heart ended on a broken chord.

He started up the slope toward the *Parsec*, but once again the girl's voice reached out to hold him back.

"John—don't you want me?"

He whirled. "Want you! Why—" he choked back the words which would tell her of the love and longing that filled him the way rich, vibrant life would fill the city of his dreams. His face grew once more flint-like.

"What ever made you think that I would consider having you as more important than the future of our race? Building on another world, we'd preserve our culture and traditions. Living down there in the city, we'd lose our racial identity just as surely as though we'd remained in the Solar System and perished with the rest. Did you think I would permit that—just for you?

"And did you ever stop to think for a moment that the people in the city might not welcome us with the friendly, wide-open arms that you all imagine they would? Have any of you actually been down in the city, seen them face to face, talked with them? They may resemble ourselves, but remember that this is a strange world, light-years removed from Earth. They may be so alien that they'd drive us crazy trying to understand or get along with them. Or, again, they might exterminate us because of some idiotic religious, political, or economic reason—or simply because they don't like our smell." Reid made an abrupt gesture.

"Enough of this. As soon as Lain and I fix up the engines, we're leaving New Terra." Without another word or backward glance, he started up the slope.

AT THE top a sudden, chilly sensation made him pause. Wind! It riffled through his hair and whipped the end of his tunic about his shorts. It hummed in his ears and the scent of it was fresh in his nostrils.

Abruptly, the sky darkened; Reid looked up to see a great, black cloud slide across the face of the sun. And then the coolness was not only of the wind; it swept down upon the world like a warm blanket thrown suddenly aside. Great, dark masses were gathering in the east and sweeping toward the camp. Even as Reid watched, a lightning flash appeared in a sudden blaze of brilliance, and a moment later there was a roll of thunder like the rumble of an awakening giant.

Reid gazed about him, transfixed. New Terra was stirring into ominous, elemental life. The trees that grew at the farther end of the rise were twisting and swaying as though in torment, their leaves rustling like a thousand tambourines shaking in a palsy of terror. The dry, brown grasses dipped and rose like waves upon a restlessly heaving sea.

Rain! Reid ran the rest of the way to the *Parsec* and bounded into the airlock.

"Doug!" he shouted. "Doug! Come here quick!"

When Lain appeared his long face was pale and strained. "I thought—What—" And then he noticed. "Rain!" he whispered. "Good lord, at last!"

They watched while the wind swooped and tore at them and the great, black cloud banks spread until they seemed to cover all the sky. Lightning flashed again, and again there was a shaking peal of thunder. It was like a signal sounded upon an immense drum somewhere in the heavens. Rain began pattering down in large, full drops, slow at first, then faster and faster until at last the water spread from sky to earth in an almost solid grey sheet.

"Great space, John!" Lain exclaimed. "All hell is breaking loose out there!"

Reid nodded, his eyes wide with appall. It was true; this was not the mere rain which he had expected at first—it was a storm of tremendous, terrible proportions. The wind had become a screaming, raging gale, the lightning crackled and flared almost continuously, and the thunder crashed and boomed like the death knell of a world. The very earth seemed to quake beneath the *Parsec*.

Reid stiffened suddenly. "The Arkites!" he cried. "My God! Doug, I've got to—" His face grey and twisted with apprehension, Reid started out into the storm.

"Come back here, you fool!" Lain screamed. "It's too late to do anything!"

BUT Reid was already out in the storm. He staggered forward a few steps and then the gale swooped down at him, smashing him to the ground like the vicious swipe of a titanic palm. It tore at him, actually rolled him over. The rain beat at him, pummelled him, blinded him. The din of the storm deafened him.

Battered, gasping, deluged, Reid fought his way back to the airlock. Dimly he was aware of others near him in the storm, struggling forward as he was struggling. Then the cold metal of the *Parsec's* hull was against his hand, and he felt along it for the airlock. His seeking fingers met wet, human flesh; others, too, were seeking to enter the ship. He acted automatically, mechanically, numbed by the fury of the elements with which he was in contact. One by one, he helped them into the ship, pushing, pulling, his hands slipping on slick, wet skin, while all the time he fought to keep his feet and balance in the terrific gale. He didn't know how many there were; his senses had become too over-taxed for the registering of further impressions. There was a seemingly interminable interval while he labored there in the midst of the storm –and then there was nothing but blackness.

When Reid awoke he found himself inside the *Parsec*. That much of his first awareness of things told him. When he turned his head a moment later, it was to discover that he was lying on the floor within general lounge, propped up by what seemed to be a folded blanket.

The lighting and heating units had been turned on for this part of the vessel, and it was bright and comfortable enough, save that it had the stuffy, tainted atmosphere of a crowded room. And it *was* crowded, Reid saw. For a moment he had hopes that all the Arkites might have escaped the storm.

"John! Are you all right?" Someone knelt beside him. It was Doug Lain.

"Doug—how is everything?" Reid demanded tensely.

"I don't know yet. A little more than half the Arkites managed to reach the ship during the first full fury of the storm; you yourself helped a large number. They kept coming in

trickles after that. Some are still arriving, but we won't know the total amount of damage done until the storm is over. And that won't be long now."

WITH a sudden pang of apprehension, Reid thought of Susan. His eyes darted quickly about the crowded room, and then he slumped back in relief. The girl was bent over the recling form of an Arkite in a far corner, tying a bandage. He had noticed Norlin, too, conversing with a group of men. Obviously, Susan and the scout had been among the first to reach the *Parsec*.

Reid thought of his own presence within the ship. He had no memory of having come aboard.

"Doug, how did I get here?" he asked, turning back to Lain.

"I went out and pulled you into the airlock after I realized that you had passed out. I was there all the time, helping you get the Arkites inside."

Reid grinned affectionately at the other. "Good old Doug! I'd never once been aware of it." His voice grew suddenly brisk and grim. "But there's work to be done; I can't lay around like this." He struggled to his feet and walked unsteadily to the center of the room.

"Attention, please! As soon as the storm ends, we'll go down to camp and pick up survivors. I'll want volunteers for that. Then several of you might go down into the hold and knock apart a dozen crates or so which we can use as stretchers. I'd like to have about three or four of the women go to the galley and prepare hot broth. There's plenty of emergency concentrates in the cabinets. The rest of you can search for such dry goods as are still present for use as coverings both for yourselves and the survivors. Are there any doctors present?"

Two of the Arkites stepped forward, dispirited, weary-looking men whose clothing hung in rags. Each gripped a sodden and battered medical kit.

"Good!" Reid acknowledged. "Get some broth as soon as it's ready, then stand by for action." He turned and left general lounge. From the storeroom he gathered a number of fluorolite lanterns, later distributing them among the men who had volunteered for rescue work. Then he went to the airlock to watch for the breaking up of the storm.

Outside it was night. The thunder and lightning had gone, leaving only the rain and the wind. Gradually, the wind died down and the rain slackened from a heavy downpour to a light drizzle.

Reid looked at Doug Lain who had joined him during the interval of waiting. "Well, I guess we can go out now," he said slowly. His tones were somber with dread.

The camp, as revealed by the beams of the fluorolites, was a flooded ruin. Hip-deep water covered everything. Not a single hut, tent, or lean-to was left standing; all had been demolished in the fury of the storm. Objects of all kinds floated everywhere.

Little more than a score of survivors was picked up. Reid found these clinging feebly to the rocks which projected from the valley walls. They were loaded onto the make-shift stretchers and taken up to the *Parsec*. But for Reid and Lain the work did not end there. Already dead-weary from sloshing back and forth through the flooded camp and toiling up and down the slope, they spent further hours in first-aid work. Assured, finally, that everything immediately vital had been taken care of, Reid rolled himself into a blanket and fell into an

exhausted slumber.

MORNING came clear and cold. After a hasty breakfast of concentrates, Reid was once more down at the ravaged camp-site, directing the gruesome task of salvage. By afternoon, all the bodies of the perished had been recovered and laid out upon the slope. And now Reid knew the full extent of the damage done.

Almost one-fourth of the Arkites had gone down in that incredible and merciless storm. It was a total that stunned Reid, left him feeling desolate and bitter. His conflict with the Arkites over the city had made him momentarily lose sight of the fact that they were *his* people. He had been as proud and jealous of them as a mother hen over a flock of newly-hatched chicks. The loss brought a forceful return of this feeling, and his emotions touched hitherto unplumbed depths of sadness and regret.

The rest of the day was consumed in burial of the bodies and the recovery of tools and supplies. A tiny, temporary camp was also set up around and about the *Parsec*. Early the next morning, Reid and Lain went down into the bowels of the ship to begin work upon the engines.

Reid scratched his head ruefully as he surveyed the gleaming rows of warp-generators. "Any idea of where to begin, Doug?" he asked. "You've been puttering around for more than two weeks now."

"Well, I've got a hunch the trouble might lie with the relaxor-relays. We'll take off the housings and trace out the leads and connections of these first. Then—" Lain broke off, listening. His face jerked abruptly back to Reid.

"John—sounds like a lot of men were coming down here!"

Reid's face, already engraved by sorrow and suffering, grew deeper lines. "Let them come," he responded metallically. He loosened the blast-gun in its holster. The weapon had somehow managed to remain with him in spite of everything.

"John, you — you're not going through with your plan after all that's happened?"

"To the bitter end, Doug. My dream hasn't lost a bit of its reality."

Reid stood there, straight and stiff, while the pound of approaching footsteps grew l o u d e r. Cold flames swirled in the dark depths of his eyes.

And then men were pouring through the engine-room door. Norlin was the first to enter. After him came a compact group of grim-faced Arkites.

Norlin strode forward.

"Reid, we've come here for a showdown."

Reid looked at the scout. Norlin had been changed by the storm as all had been changed. His uniform was no longer neat and immaculate; it was wrinkled and torn. His irrepressible grin was gone, as was the carefree light in his eyes. His face was set, ominously purposeful.

"We know why you both are here," Norlin went on. "You've come to overhaul the engines to take us away from New Terra. Well, we're not going. We've made up our minds—we're going to the city. And you're going to take us there in the *Parsec*. What you do after that, none of us cares."

"This is mutiny!" Reid whispered fiercely.

"Make of it what you will! We refuse to follow you any longer. If you won't have any consideration for our well-being while you follow your crazy plans, then we'll have to look out for ourselves."

"WAIT a moment, Norlin." Reid leaned forward, his eyes burning into the scout. "Aren't you forgetting something? Aren't you forgetting that I rescued you and all the rest from the hell that was left of Earth? What do you think your chances would be if you were there now—soft as you all are? Starvation, plague, madness—death!

"By that very act of saving you, your lives have become my property. You owe me a debt of gratitude that can be paid back only through the strict obedience of my wishes and commands. Have you lost all pride and self-respect, become so degraded and without sense of honor or duty that you'd be willing to forego this debt for the life of luxury and ease which you imagine the city holds for you?" Reid's bitterly accusing gaze raked the Arkites, and one by one, their eyes dropped before his.

"Don't be fools!" Norlin's voice lashed at them. "I'll admit he saved us, but does this fact make us his slaves? Are we going to be led around by our noses, made to suffer and die, because of a debt? The storm gave you all a sample of what to expect if you keep on following him. Do you want more of that?" He whirled back to Reid.

"You're mad to exact such payment from us! Your whole plan of leaving New Terra after all that's happened is insane. We can owe no debt of gratitude to a madman—we cannot be expected to follow him, either."

"Madman!" Reid was coldly furious. "Is this the only interpretation which you can make of my determination to leave New Terra and having nothing to do with the city? Then you *are* stupid, Norlin! Can't you see that my own personal satisfaction does not enter into it? Can't you see that the comfort and safety of the Arkites is of no importance whatsoever? It's the future of our race that counts. Everything I've done and intend to do has been meant for your children and your children's children. If you can't see that, then you're the ones who are mad!" Suddenly all anger left Reid; he became desperately earnest.

"MEN, you've just got to understand that your intention of going to the city is wrong -terribly wrong. It's an unforgivable expression of weakness and cowardice. You'll be making beggars of yourselves, parasites upon another race. You'll be destroying the last hope of a once mighty civilization. What sort of chances do you think your children will have, living among an alien people? And, for that matter, what do you think your own chances will be? You don't know a single thing about the people in the city. You can't be certain whether you'll be welcomed or killed outright."

"We've discussed that, Reid," Norlin said coldly. "We're certain we can take care of ourselves." He made a gesture of sudden impatience. "I've had enough of this! We've made up our minds and nothing's going to change them. After the storm, we'd risk anything rather than go further. For the last time, are you going to take us to the city?"

Showdown had come, Reid knew. Both pleading and reasoning had failed; there was but one response to make now. Norlin's jaw muscles were clenched whitely, his body taut as a spring wound for instant, furious action. The grimly determined Arkites behind him were making a slow, almost imperceptible movement forward.

"Do you know what my answer is?" Reid snapped. *"This!"* His hand flashed to the holster at his hip, pull-

fng the blast-gun free. As straight and steady as though set in rock the weapon covered them. "I'll kill the first one who moves, I swear it! Now listen to me. Both sides of the matter have been presented fully by now, and by all the laws of common sense, mine still remains the right one. If you can't and won't see it that way, then there's only one—"

"John! Steve! My God, stop it!"

Reid's attention focussed involuntarily upon the source of the cry, his sentence left unfinished. An auburn-haired fury was scratching and clawing her way into the engine room. It was Susan, her face pale and twisted with terror.

Reid jerked his eyes back to the men before him, but the diversion caused by the girl's entrance, even though of less than a second's duration, was a disastrous one for him. The blast-gun was smashed suddenly from his grasp, and almost in the same instant the Arkites threw themselves upon him in a battering wave of human flesh. Doug Lain uttered a strangled sob and threw himself frantically to Reid's aid. But the attempt to fight back was futile for both of them, heavily outnumbered as they were.

For a moment only was Reid aware of pounding fists and clutching hands, of pain that flashed and roared. The next, he was plunging abruptly into the ebon depths of unconsciousness.

WHEN Reid came to, he found himself in the control room of the *Parsec,* seated in the pilot chair. He shook his head dazedly, and it was as though the action had upset a bucket of molten metal inside his skull, for droplets of searing pain coursed suddenly along the channels of his nerves. He winced and closed his eyes again, realizing with a dull fury that his body was so bruised and battered that it was almost one, huge, continuous throbbing ache.

Reid stared hard at the instrument board before him, his eyes settling slowly back into focus. Then a flicker of motion caught his quickening awareness; he turned to see Norlin appear beside him. In one hand the scout gripped the blast-gun upon which Reid had pinned his last hopes of resistance —and failed.

"So you're finally awake, eh?" Norlin grunted. "Well, it's about time. We've all been waiting for you to come out of it. Everything's been packed into the ship, and we're ready to move."

"Ready—" Reid's lips curled bitterly. "You're in a hurry to see your folly through, aren't you, Norlin?"

"Perhaps. But I wouldn't call it folly. I've got this, remember." Norlin brandished the blast-gun. "Now listen, Reid, I'll have no tricks, see? You've lost irrevocably, and the least you can do now is to be decent about it. I'm holding no grudges against you; in fact, when we reach the city, you and Lain will be free to do as you please."

"Where is Lain?"

"Down in the engine room, waiting for orders. I told you we were ready, didn't I?"

Reid leaned forward and pressed the signal button of the inter-ship communicator. After a moment a voice buzzed from the speaker.

"What is it?"

"Doug, is that you?"

"John! Are you all right?"

"Well enough. Doug, hasn't anything been done about the engines?"

"Of course not. You know it's a two-man job. We'll never get down to the source of the trouble unless we take them completely apart, and then put them back together again, checking every detail against our formulae. And,

well—you know how it is. . . ."

"Norlin tells me we're ready to leave at once."

Lain's sigh was just barely audible through the speaker. "That's what I meant."

Reid swung around to the scout. "Norlin, something's wrong with the engines. It won't be safe to move the ship until the trouble has been found and corrected."

"You're stalling!" the other snapped. "If you think you can make a play for time in order to—"

"I'm serious, I tell you!" Reid gritted. "Look. Remember that queer shake-up we had upon first emerging from hyperspace into Alpha Centauri's system? Well, it wasn't the natural phenomenon you all thought it was. Normally, the translation process should have been almost unnoticeable. That shake-up meant something was drastically wrong somewhere. Remember, Norlin, this isn't the kind of ship with which you've grown familiar. It travels through an entirely different medium, upon an entirely different principle. We just can't take chances."

"Well, if another shake-up's all we can expect, that won't be taking much of a chance. Reid, I've told you we're ready; we won't stand for any delays."

REID started to speak again, but a glance at Norlin's stubbornly determined face told him it was useless. He turned back to the inter-ship communicator.

"Doug, have you heard everything?"

"Yes, John. I'm afraid we'll just have to risk it, then. Ordinarily, I wouldn't take a chance like this with hyperspace, but I guess there's nothing else we can do."

Reid's features settled grimly. "All right. Stand by." His fingers played over a bank of keys on the control board. "Signals?"

"All clear."

"Ready, now. I'm turning on power." Reid pulled down a switch and simultaneously the instrument board before him lighted up. He depressed an activator stud and now a deep hum spread throughout the ship. He watched the progress of an indicator along the face of one of the meters on the control board, his hand ready upon a lever. When the indicator reached the stop, he pulled the lever forward. The hum rose to a shrill whine; there was a sudden sensation of motion—change. Another indicator moved and came to rest.

Reid turned. "We're in hyperspace."

"No tricks, now!" Norlin warned.

"Tricks?" Reid snorted contemptuously. "You're in my power out here, Norlin, and don't forget it. One wrong move upon these controls would kill us all instantly and horribly. But there would be no point to it; either here or in the city, the last hope of our civilization dies. I wouldn't want to be the one responsible for it. Your own senseless determination will take care of that."

Reid turned his attention to the control board again. He pressed a button beneath what appeared to be a large, concave mirror. This was the hypervon, a viewing device which served somewhat the same purpose as did periscopes on 20th century submarines. Reid and Lain had realized early in their experiments that hyperspatial travel would be useless unless some means of reference could be made constantly to the familiar guide-stars of normal, interstellar space. Almost as much as the warp engines, perfection of the hypervon had occupied their time.

Now the hypervon lighted up. In its

center, tiny, though sharp and clear, appeared the flooded campsite and the rise upon which the *Parsec* had rested. This was all that was visible; the outer edges of the screen remained grey and featureless, flickering weirdly with light and shadow.

REID touched the control stick and the scene changed abruptly. Mountain, plain, and forest appeared and vanished with incredible rapidity. For a longer time there was the deep blue of water. Then the mountains of the other continent appeared and swelled into size. Soon they were within the bay, and Reid cut their progress to a crawl, following the shoreline.

"Lord!" Norlin whispered, watching the hypervon in awe. "And to think it took us almost three days to get here in the auxiliary!"

And then the city appeared, a tiny picture of perfection. Just within sight of its outlying farmlands, Reid returned the control stick to neutral. He operated a series of switches and buttons, and gradually the ground below the *Parsec* as seen in the hypervon grew in size and detail. He took up the stick again, and once more they moved forward. Finally a road that gleamed with the hue of metal appeared on the screen.

"We're on the outskirts of the city," Reid said.

Norlin nodded eagerly. "Land here."

As Reid prepared to fold in the warp-field and return the *Parsec* to normal space, he paused, gripped by a sudden premonition of disaster. The trip thus far had been without danger, but he remembered that it was just at this point on the previous voyage that the shake-up had taken place. There had been no serious consequences, other than the mere fact of the occurrence, but he felt that a repetition might not be so fortunate.

Suddenly Reid shrugged; he had nothing to lose. Everything had been lost already. He reached out to the control board again and began to draw back the power release lever, watching the meters and gauges on the instrument panel.

The field was folding in; the indicators flickered toward their stops. Reid held his breath tensely.

It happened, then, just as he had subconsciously felt it would. There was a sudden, ear-piercing whine that rose into inaudibility, became a vibration that tingled painfully along his nerves. The *Parsec* was shaken with abrupt violence, and Reid, clutching desperately at his seat, saw the hypervon flare with intolerable brightness. Simultaneously, there came the sound of a terrific explosion. Scarcely had the echoes of this died away, when Reid was thrown out of the pilot chair by a great crash.

Sickened, stunned, Reid groped to his feet. Across the room, Norlin was arising painfully out of the corner into which he had been thrown. Everything was very still.

And then Reid stiffened, paralyzed with sudden, chilling horror. He darted to the inter-ship communicator.

"Doug!" he cried. "Doug! Answer me!"

HE STRAINED his ears with the intensity of his listening, but no sound came from the speaker. He turned and ran crazily from the room, his breath sobbing in his throat. Only a very small part of him was aware that Norlin followed.

Reid reached the engine room to find smoke pouring from the door in thick, black clouds. The air was acrid with the smell of ozone. The interior was a shambles of destruction. Flame had

blackened and seared the walls. The engine housings had been blown entirely off and the delicate inner mechanisms lay scattered all over the room, blasted into fragments.

Finally Reid's eyes settled upon the charred body of Doug Lain. He walked forward slowly, his face a gray, lined death-mask. Everything became very motionless and quiet.

"Doug!" he whispered. "We could have gone on together, you and I. There's so much we could have seen, so much we could have talked about. And now—" Reid's voice ended brokenly. After a time he looked up. His gaze fixed upon Norlin standing woodenly in the engine room doorway.

"*You* did this!" Reid accused in low, terrible tones. "*You* killed him just as surely as if you had blasted him with the gun you're holding. If you had listened to me this would never have happened." Reid stalked toward the scout, his hands spread like talons. His eyes burned with a light as awful as the very fires of hell.

Norlin's face paled. "I didn't know!" he gasped. "I tell you, I didn't realize—"

Reid's forward progress was the slow and inevitable one of death itself.

"Reid, wait! Let me explain."

But Reid did not halt, did not waver. He came on.

Norlin broke; he released an inarticulate cry, whirled, and ran from the engine room. He fled as if every fear known to man since the dawn of time had suddenly taken on form and substance to pursue him. He had forgotten the blast-gun in his hand, had forgotten everything save his insane desire to get away from the hideous, consuming fire that blazed in Reid's eyes.

Like an automaton Reid continued onward. And then, suddenly, the supernal fury died out of him. Just at the foot of the ladder which led to the upper deck he collapsed, crumpling slowly like a man grown abruptly old and weak. He lay there motionlessly, his head buried in his arms.

He had lost—utterly, completely, beyond all hope of recovery. His dream of transplanting civilization and watching it bud had failed. By now the Arkites were within the city, their first step toward racial destruction having been taken.

With Doug Lain he might have found solace, traveling in the *Parsec* to all the numberless, glittering stars of the universe. But Doug Lain was dead and the *Parsec* would never travel again. There was nothing left for him. Nothing, except—

"John!"

HE LIFTED his head wearily, mechanically. Someone was calling him. Susan. But what difference did it make? He had lost Susan, too.

"John! Where are you?"

A dim response of emotion stirred within him. Susan's voice was sharp and strained. Something was wrong.

He shook himself out of the numbness of despair. What could be wrong? He remembered, suddenly, having warned the Arkites against the inhabitants of the city. His eyes widened. Could the Arkites have been attacked?

Strength and spirit came back to him in a rush. He rose to his feet and climbed up the ladder. He gained the upper deck in time to see Susan turn a corner at the lower end of the passageway.

"Susan!" he called.

The girl reappeared, her face lighting in relief. "Oh, John, I've been looking all over for you!" She hurried toward him breathlessly.

"What's wrong?" Reid demanded.

"The city!" she gasped. "The

city, John. It—*it's gone!*"

"Gone?" Reid stared at her bewilderedly. Abruptly he whirled and bounded toward the airlock. Bright, afternoon sunlight poured down upon him as he jumped to the ground outside the ship. He looked quickly about him, his eyes widening with shock and disbelief.

Incredibly, amazingly, it was true. *The city had vanished!*

Reid stared in all directions, his senses whirling in confusion. The *Parsec* should have been resting upon a gleaming, metal road. Huge, multicolored buildings should have been towering before him.

But there was no road. There were no buildings. Reid looked out upon an immense plain, covered with waving grasses. At its outer fringes a great, dark forest spread. In the hazy distance, gigantic mountains soared majestically into the green sky.

Mountain, plain, and forest were as Reid remembered them. He turned his head. Yes—and there was the great curve of the bay, its waters lapping gently at the white sand of the shore. Except for the disappearance of the city, the scene had changed but little.

FOR the first time, now, Reid became conscious of the Arkites standing all around him. They were subdued and bewildered, their eyes anxious and questioning. Their glances fell before his shamefacedly.

"Where's Norlin?" Reid asked.

"He ran down there somewhere," one of the Arkites volunteered. "He came running out of the ship as though he'd gone crazy. When he saw the city was gone, he let out a yell and started running. We called to him but he didn't stop. After a while we lost sight of him." The man shrugged.

"He was a trouble-maker anyway. We shouldn't have listened to him."

Susan's voice sounded abruptly beside Reid. "John, are you sure this is the exact place where you and Steve saw the city?"

"No doubt of it," Reid answered. "There just couldn't be another place like this on the entire planet. And just before the accident occurred, the city was just beneath the ship, relatively speaking, of course. The field was almost gone, so weak that it just couldn't have moved the ship for more than a few feet."

"But, John, what could have happened? Why did the city vanish like that?"

Reid's eyes clouded with thought. "I think I know," he said slowly.

The Arkites gathered around him in an eager, attentive circle. He was their leader again. His words were something to heed, and they tried to show, like the children they really were, that henceforth they would heed them. They listened.

"Doug Lain and I built the warp-generators under terrific pressure," Reid began. "Almost from beginning to end, it was a constant race against time and the destructiveness of man. It was only to be expected, therefore, that some mistakes should creep in. Just what these were, we'll never know, now.

"In some way, our long run through hyperspace here to Alpha Centauri's system made these mistakes crop out forcefully. They altered the principle of the generators so that they produced a warp which allowed travel not only through hyperspace, but through time also. In what manner the two are linked I can only guess. They may interlock, run in parallel planes, or they may be one and the same thing.

"Anyway, in the instant upon

emerging from hyperspace into Alpha's system, the intensity of the warp-field was such that the *Parsec* was snapped through time. Instead of emerging at almost the same period that we first entered, we did so at one which I estimate as being approximately 500 years in the future!"

REID looked at the Arkites, and suddenly his eyes were glowing.

"Listen closely now. You all are aware of the fact that animal life here on New Terra hasn't as yet reached a very high point of development. This can only mean that the builders of the city were not natives of New Terra!

"Then who were they? They were intelligent. They resembled us. They built only *one* city, whereas if they were a race native to this world they'd have had hundreds, in addition to towns and roads. Can you imagine that a race capable of building a city like that wouldn't also be able to navigate the great oceans and spread out to the other continents? They didn't do so because of the fact that expansion wasn't necessary—there weren't enough of them to make it necessary. In the thousands of years that it takes a race to achieve civilization, could it be possible for their numbers to remain so few as to build only one city, inhabit only one continent?"

Reid looked at the Arkites. Their eyes were glowing, too. They *knew* now.

Reid went on swiftly. "When the *Parsec* emerged from hyperspace over the city, it was snapped through time once more, to the same extent as previously but in the opposite direction. We were returned to the point in time where we should originally have emerged. As a result, the city had vanished. It hadn't as yet been built!" His voice became deep and vibrant.

"That was *our* city! *We* are the builders! Through a strange quirk of fate, we saw the crowning result of our work—the work which we will begin now and which our children will carry on after us. Our civilization will not perish after all."

For a moment there was silence. Then one of the Arkites ventured timidly:

"Would it be possible for us to go back to the city?"

Reid smiled sadly. "The second shake-up not only snapped us back through time, but also strained the engines to the point where their inherent flaws caused them to explode. They're ruined, utterly and completely. Doug Lain, who might have helped me rebuild them, was killed in the explosion. I could never do the job alone in all the years of life left to me.

"No, we'll never be able to return to the city. Let us keep it in mind only as an inspiration. Our work lies clearly before us. The foundation for the city must be laid. That and that alone should henceforth occupy our thoughts."

The Arkites looked at the plain and the forests. They looked up at the sky. And Reid knew they saw neither plain, forest, nor sky. They looked through these things with the dreaming eyes of a race, and the vision they saw was one of glittering, sky-high towers and a people grown happy and wise in their greatness.

ONE by one, the Arkites went into the *Parsec*. The women came out with pots and pans and baskets of food. They began clearing spaces for fires. The men came out with axes and saws slung over their shoulders. They moved off toward the forests, and presently there came busy sounds of chopping and sawing.

Everywhere Reid looked, the Arkites were absorbing themselves in some small task, gladly, willingly. Life for them had suddenly taken on purpose and meaning.

Reid felt a light touch on his arm; he turned to see Susan looking up at him, her grey eyes shining moistly.

"John—they're happy!" she whispered incredulously.

"A building people are always a happy people, Susan. All the Arkites ever needed was a goal toward which to direct their efforts—something more than merely the dream of one man, something which they could visualize for themselves. They have that, now."

"And I've found something, too, John."

The shining, grey eyes still looked up at him. Reid glanced away, troubled to find that this girl could still make his heart ache in spite of the happiness that had finally come to him.

"I'm glad," he said huskily. "This is a new beginning for you, too, I suppose. Steve Norlin will be back, of course, and then you'll have your own home and—"

"You *are* blind, aren't you, John? And you're wrong about Steve. No; he won't be back. He was really in love with himself, you see. Loss of the city meant an end to his hopes of comfort and leisure, and there just wasn't anything else left for him." Susan shook her auburn head. "He won't be back."

Reid had a sense of foreboding as he looked into her eyes, wide and dark with the age-old intuition of woman. He was to remember this feeling forcefully several weeks later when Norlin's body was discovered in the forest, its head blown off by the blast-gun. But at the present it was crowded aside by a sudden, heart-quickening thrill.

"You—you don't care?" he cried.

Her grey eyes smiled again. "No, John. I stopped caring that day I asked you if you wanted me. Oh, you should have seen your face! That was what I learned—real love. You wanted me, but the race came first. And I knew you were right, John, though I did want to help the Arkites. I realized, then, that what Steve was doing was wrong; I knew that if I had offered myself to him in order to prevent him from going to the city, that he'd have refused me. It was his own well-being that concerned him most; he had no real thought for the Arkites."

Susan was silent a moment. When she spoke again, her voice was very soft.

"Well, I'm here if you still want me."

"Still want you? Why—" Reid choked inarticulately; the words he wanted to say were so full with affirmation that they stuck in his throat. Music throbbed in his veins. And then, somehow, she was in his arms and his cheek was pressed to her hair, and there was no longer need to say anything.

THE END

THAR'S GOLD . . . !

REMINISCENT of the old gold rush days is a new announcement—in an even more picturesque setting than exciting Yukon!

From South Africa comes the report that a gold reef lost 40 years ago in the old working of the Southern Van Ryn Mine in the Klerksdorp district has been rediscovered. According to the public statement of an official of the mine, the precious ore was found hanging like icicles from jagged rocks throughout a distance of 300 feet. Samples taken have shown this ore to contain 70 per cent pure gold! It has already been found that this ore can easily be assayed without the usual reduction of gold value.

Sorry, Mister, there are no ships leaving for South Africa tonight!

AMAZING FACTS

By A. MORRIS

TESTING FOR FUTURE DELINQUENTS

IT IS the opinion of Mr. H. Ashley Weeks, of the State College of Washington, that by using questionnaires that will bring out important points about the home and school background of American children an experienced sociologist can predict whether a child will become delinquent. He even goes one step further to say that having determined whether or not the child will become delinquent it is then possible to predict the type of offense the child will commit.

The purpose of the questionnaire would be to identify those children likely to become delinquents and thus the schools and social workers could concentrate on these children so that they can be educated to refrain from going astray.

* * *

A LARGE BABY

ALTHOUGH many babies weigh more than the average 7 pounds at birth, it is very rare indeed when one hits 19 pounds which was the weight of a baby boy delivered a few years ago to a North Carolina mother.

* * *

THE WARRIOR ANT

IN THE ant kingdom professional soldiers are quite common. These soldiers do not work other than defend the home nest when challenged by invaders. A soldier ant may have two big weapons with which to overcome his enemies. In all cases, the soldier ant has a strong set of mandibles. However, in some cases he may have an auxiliary weapon. This auxiliary weapon has been analyzed by chemists to consist of formic acid. The soldier ant generally uses the acid in either of two ways. As an irritant the acid is sprayed into a wound inflicted by the mandible. This aggravates the wound to the extent of the actual disablement of the enemy. The acid may also be used to paralyze the membranes in the big joints of an opponent. In this type of an attack, the ant first begins by pulling the legs of his opponent with such a force that the membranes in the leg joints become tightened. Once the membranes are tight the formic acid is ready for use. This acid when sprayed upon the tightened membranes causes temporary paralysis or death.

* * *

WHAT A LIFE!

THE following is a list of some of the representative commodities in London during the seventeenth century, together with their prices:

A pair of shoes	ten cents
A leg of mutton	five cents
A whole sheep	fifty cents
A loin of beef	fifteen cents
A whole lamb	fifteen cents
A loaf of bread	one cent
An overcoat	fifty cents
A woman's woolen dress	twenty cents

The Mayor of London paid a yearly house rent of eight dollars and fifty cents, and his was a fine house. A house with a sun parlor and a cellar was built at the total cost of fifty dollars and some skins. The city's most splendid mansion was put up for about one hundred and seventy-five dollars.

No, there was no thought of inflation in those days!

* * *

FIRE-PROOFING FABRICS

THE threat that our cities might be subject to a hail of incendiary bombs has given added impetus to the search for a substance that will make fabrics fire proof. The Du Pont Company has built a new factory in Grasselli, N. J., which is producing ammonium sulfamate, a chemical that will make fabrics fire-resistant. It can be applied to clothing and draperies just as easily as the housewife now starches them and it can be sprayed on the upholstery.

This substance can be used to make the fabrics in the homes safe from fire started by incendiary bombs or other causes and will also be used in theaters, halls, meeting places, hotels, restaurants, etc., to increase the protection for their patrons.

* * *

BORN TO DESTROY

IF YOU'VE seen "The Good Earth," you know what locusts are. These insects are known for their mass migrations (probably in search of food), and extraordinary accounts are on record of the vast swarms that from time to time invade particular districts. Locusts clear everything off the surface of the ground, on these expeditions, and have on several occasions caused disastrous famines.

The item of interest about these creatures, however, is that there is no "training period" in their life of destruction. Unlike other insects and animals, locusts do not go through several stages of development before they achieve adult status. Almost the same minute they are hatched, the larvae commence their destructive career!

Never TRUST

by ROBERT BLOCH

Snartch conjured up a demon and set out to make his dreams come true. But he overlooked one very important factor...

"I GUESS I'm just no good as a carpenter," said Mr. Snartch, as he sawed the woman in half.

"Look at this sloppy stroke!" he muttered, as he hacked through the lady's hips.

Of course, Mr. Snartch muttered all this under his breath, because an audience isn't supposed to hear such comments from a stage magician. And Mr. Snartch was a stage magician, travelling under the name of Jeffrey the Great.

As Jeffrey the Great, he had to saw a woman in half every night, and twice

A DEMON

A few passes, the right words—and there stood Snertch's demon!

a week at matinees, and he was getting pretty sick of it. The first few times were fun, but now it was just plain drudgery. Sometimes he hardly had the ambition to put the lady back together again at the end of the show. And of course, such a thing would be bad. If it kept happening, he would not only get a poor reputation as a magician, but he would also lose a lot of partners.

So tonight he hurried through his act, sawing away like mad, and then put the pieces together in record time.

Mr. Snartch wanted to finish the show and get back to his magic.

That was Jeffrey Snartch's salvation. His only hobby—magic. Not stage magic, but *real* magic. Black magic. Not the hocus-pocus variety, but the genuine article. Sorcery. Necromancy.

Tonight he was particularly anxious to get away from the theatre because he had just discovered a swell new formula for conjuring up a demon.

Perhaps it wasn't a swell new formula, exactly. It was more of a swell *old* formula, and Jeffrey Snartch discovered it in a very ancient book, printed in Latin.

So he finished his performance in a hurry and ran out of the theatre and over to his hotel room where he had the book hidden under the mattress.

He had translated the particular spell he was interested in, and written it out on a piece of hotel stationery, along with a list of things he had to use in order to make the incantation work.

"Let me see," said Mr. Snartch. "I will need some toad's blood and some sacramental wine and some chalk to draw a pentagon with and five black candles and mandrake roots to burn."

So he put on his hat and coat and went out on a shopping trip. Half an hour later he was back in his room with the bundles. He spread everything out on the bed and pulled down the shades.

"Of course, I didn't manage to get *exactly* the right things," he confessed to himself. "But I guess they are just as good."

Instead of toads, Mr. Snartch had to buy some frogs at a pet shop. Naturally, he couldn't buy sacramental wine, but he figured on using a little grape juice instead. He had the chalk, though, and the candles. Of course, the candles weren't black ones. They were birthday candles—but it was all the store had. And Mr. Snartch didn't even know what mandrake roots look like—so he just stepped into a vacant lot and pulled up a handful of weeds.

"But I guess it will be all right," Mr. Snartch kept reassuring himself.

SO HE took his translation of instructions and began to do what the book told him. He drew a pentagon and lighted the candles and mixed up some frog's blood and grape juice and set fire to his weeds in a tray. Of course, there were a lot of technical things he had to do with all this, but the important thing is—in half an hour he had his room in one hell of a mess.

Then he turned out the lights and began to chant his formula out loud by the light of the candles.

It was very dark and frightening in the hotel room, and the birthday candles cast some very unusual shadows. The air was filled with the smell of the burning weeds.

But Mr. Snartch didn't worry. He was an old hand at wizard's work, and he just read his Latin, rolling out the syllables, and hoped for the best.

He got the worst.

When he finished with the Latin—cheating a bit now and then, where he didn't understand how to pronounce the words—he started to make the necessary passes in the air. And that's when it happened.

Suddenly the curtains began to blow. This was unusual, because the windows were all closed.

Then the shadow appeared on the wall. Some one else was in the room! This was unusual, because all the doors were locked.

Mr. Snartch looked at the shadow. Then he blinked. He looked again and saw what cast the shadow. Then he yelled.

"Eeeeowie!" yelled Mr. Snartch.

"Not bad at all," said a voice. "The last man who saw me didn't yell at all. He merely jumped out of the window."

"Candidly, that's what I'd like to do," chattered Snartch. "The only trouble is, the windows are locked. And my knees are trembling too hard for me to jump."

"So I notice," said the voice. "Hold on now, I'm coming out into the light."

Mr. Snartch watched the figure coming forth against the candle light. That is, he started to watch it from where he stood. But he ended up by peering at it from under the bed. He crawled there in a hurry when he got a good look at what he had conjured up.

For a minute he could hardly speak.

"Bless my soul," he whispered. "Bless my soul!"

"Sorry," said the voice. "That's not exactly in my department. "Maybe I'd better go."

"I didn't mean to offend you," said Mr. Snartch, hastily, as he came out from under the bed and stood up. "It's only that you sort of overwhelmed me."

"Did I really?" said the voice, with a pleased chuckle. "Well, well."

"You're pretty awful, you know," said Snartch.

"Am I?' cooed the voice. "Am I ghastly?"

"Frightful!" exclaimed Mr. Snartch.

"Oh, you're just trying to flatter me," simpered the voice.

"Not at all," Snartch insisted. "You're really and truly hideous."

The demon *was* hideous.

HE SQUATTED there in the center of the floor. His body was lean, mean, green, obscene. A vast bulk, toadlike, with slick reptilian skin. He had webbed feet and claws, fringed with moss at the cuticle. He looked as though he had been pickled a long, long time ago.

His face, as faces go, just didn't. Imagine a green skull with yellow eyes and you get the idea. You can have it.

Mr. Snartch felt the same way. The more he looked, the less he liked his visitor.

The demon crouched forward, extending his grinning face on a stalk-like neck. A forked tongue licked forth between fretted lips. He looked as though he were crouching to spring.

Mr. Snartch stepped hastily back inside the pentagon, which was to protect him from the demon.

"You can't cross the line of chalk or go between the candles," he whispered. "Stop looking at me that way!"

"What way?" whined the demon. "All I wanted was a glass of water. Can't you see my tongue is hanging out? I've had a long, hard trip."

"Try some of this," Snartch suggested, pointing to the bowl of frog blood and grape juice.

"Ah!" said the demon. "That's more like it."

"Vitamins," said Snartch.

"Yes, it was a terrible journey," the demon sighed, between gulps. "Whirling across space that way. And then wriggling between dimensions. It's not easy when you get to be my age."

"I can imagine," sighed Mr. Snartch, sympathetically.

"Besides, I haven't been getting any calls now for a long time," the demon

confessed. "I'm out of practise."

"Really?" said Mr. Snartch.

"Yes. You know what's happened to sorcery in the last few centuries. It's fallen off terribly. Nobody even practises witchcraft. Say, by the way, how did *you* happen to run across my address?"

"In this book," Mr. Snartch explained, pulling the volume out of his pocket. "Ever see it?"

The demon cocked his head thoughtfully.

"Of course. It used to get me a lot of trade several hundred years ago. Now nobody seems to read it any more. This modern age!"

He sighed, like an air-raid warning.

"Mind if I sit down?" he asked. "I'm tired out from the trip."

"Go ahead," said Mr. Snartch, hospitably. "You *are* pretty old, aren't you?"

"Just look at me," groaned the demon.

MR. SNARTCH didn't want to look at the demon, but he managed to stand the sight for several minutes. He noted the wrinkles in the demon's face, the flabby pouches on his arms and legs where muscles had once flexed. Varicose veins stood out prominently.

"'Ook 'ere," rasped the demon. "'Ook af my teef. Mof of 'em are miffing."

Sure enough, only a few big yellow stumps remained in the demon's mouth.

"Too bad," Mr. Snartch sympathized.

"Yes. I can hardly eat a thing any more," the demon confided. "I just nibble at an arm or leg now and then."

"You do," wheezed Snartch, turning pale. "Just—nibble—you say."

"Nibble," repeated the demon.

Mr. Snartch suddenly dropped all notions of becoming friendly with his guest from Gehenna. He trembled anew and hugged the safety of the pentagon.

"Well," he said. "This is all very interesting, but it isn't getting us anywhere. Pretty soon the candles will burn down—they're only birthday candles, you notice—and then you can step across and get me. In order to avoid that, I think we'd better get our business out of the way right now."

"To be sure," said the demon. "Of course." He squatted on his haunches and rubbed his hands together thoughtfully. "What can I do for you, sir?" he inquired.

Mr. Snartch cleared his throat nervously.

Here it was! It was all true, then. Mr. Snartch could actually get what the old books promised! He had a genuine dead-alive demon at his command. What *did* he want?

"Money," said Snartch. "I want a lot of money."

"A wise choice," said the demon. "I'll just put you down for say—a million dollars?"

"*And* the income tax," Jeffrey Snartch added, hastily.

"And the income tax. Very well."

"In return, of course, you'll want something?" said Mr. Snartch.

"Naturally." The demon's eyes sparkled. "Let's have a look at you now. Hmmm. You're nice and plump. I think I would enjoy you."

"Enjoy me?"

"Enjoy eating you, I should say."

"I should say not!" Mr. Snartch turned pale. His eyes narrowed. "I have hardening of the arteries," he said. This was a lie.

But the demon paused. Mr. Snartch quickly followed up his advantage.

"Besides, I am a heavy smoker," he remarked. "And you know what the cannibals of New Guinea say."

"No, I don't. What do they say?"

"That smokers have an unpleasant tobacco taste."

"I see."

"Also," added Snartch, " I wouldn't like to hurt those teeth of yours. You aren't so young any more. You might have trouble with bones." He shook his head. "Really, as your friend, I'd feel very guilty about letting you eat me."

"Well, if you put it that way—"

"Why not take my soul?" suggested Mr. Snartch. "Give me my million, plus taxes, and six months. Then take my soul. It's a better deal, I think."

"All right," said the demon. "I'll buy that. Would you mind signing here, please?"

A LITTLE black book appeared in the demon's claws. He tossed it across the pentagon. Mr. Snartch took out his pen.

"Blood, please," insisted the demon. "Let's make this thing legal."

Mr. Snartch pricked his finger and wrote his name. Then he tossed the book back.

"Thank you," said the demon. "See you later with that million."

He disappeared. Mr. Snartch sighed.

Suddenly the demon's head glimmered in the air before him.

"How do you want the money?" he inquired.

"Oh, any way at all," Snartch told him. "Large bills will do. Just so I get it soon."

"To hear is to obey," hissed the demon. The head disappeared.

Mr. Snartch breathed a sigh of mingled relief and regret. Then he set about re-arranging the room. It took him quite a while to clean up and restore order. By that time it was very late. He lay down on the bed and went to sleep.

When he woke up it was daylight.

"Oh oh!" thought Mr. Snartch. "I'll be late for the show at the theatre today."

He'd forgotten about the matinee.

Dressing hastily, he ran out of the hotel lobby in a frenzy and hailed a passing cab.

"Grand Theatre!" he yelled.

The show had already started when he arrived. Myra, his assistant—the lady he sawed in half—was anxiously awaiting him.

"Oh, Jeffrey!" she wailed. "What happened to you?"

Jeffrey Snartch shrugged feebly. He wasn't exactly pleased by her solicitude. A very determined type of woman, Myra. And apparently she had determined to marry him. He avoided her whenever possible, never talking to her. Their only intimate contact came when he sawed her up.

Snartch put on his dress clothes and emerged again as the magician. *Jeffrey the Great.*

The band was playing for the opening of his act. Quickly he arranged props with Myra. Then he strode out on the stage.

During all this time he had no chance to remember the events of last night. He was too busy, too rushed. Once on the stage, the audience claimed his attention.

JEFFREY SNARTCH started out with a few card tricks and a couple of handkerchief bits. As he went through the business and reeled out the patter, his thoughts blurred. He followed through his paces as a matter of routine.

Absent-mindedly, he waved his arms, feeling for the gimmicks which controlled a rabbit, flowers, and a boiled dinner which would be produced from his sleeve.

He made a few passes and let the

first object slide into his hand.

"I have here a rabbit," he said.

The audience laughed.

"I have here a—what the—"

Snartch stared at his hands. There was no rabbit in his palm. Instead, his fingers clutched a wad of yellow bills. Thousand dollar bills!

Again, automatically, he gestured. "A rabbit!" he muttered.

No rabbit. Another package of bills. The audience howled.

"All right," said Snartch, desperately. "No rabbit. But I *have* got a lot of lettuce!"

The laugh that followed won the audience once more. Desperately Snartch wriggled around. What in blazes had happened to that rabbit?

He patted his coat. Another wad of bills flew out. And then another. He scarcely noticed.

Again he clutched at his shirt, seeking for the elusive bunny. Money showered on the stage.

Desperately now, he wondered if the rabbit had wandered into his trousers. He shook his trouser-legs.

There was a furious clanking, and a flood of gold pieces dropped from his trousers. The audience hooted and screamed.

So did Snartch.

As he attempted to bow, greenbacks burst from his waist, cascaded from under his vest, poured from his pockets. He stood knee-deep in currency as the curtains fell.

Indignant voices rose around him. The stage manager ran out, cursing.

"What the hell's the big idea?" demanded that worthy.

Then he stared at the money.

"Jeez, it's real!" he gasped.

Snartch grinned. Suddenly he realized what had happened. The demon's promise—one million dollars! He'd chosen a unique way to deliver it.

"Of course it's real," Snartch chuckled, scooping up bills like mad. "And so is this."

"What?"

Snartch tweaked the stage manager's nose.

"My resignation," he said. "As of today. Now. I quit. I retire."

Leaving the manager goggling, Snartch strode off the stage, carrying his cash.

Myra waited for him in the wings.

"What's this?" she sobbed. "You can't really mean you're through?"

"But I do mean it," Snartch said, trying not to be unkind. "I don't know just how to tell you this, Myra, but I have sawed you in half for the last time."

"What will I do?" whispered the girl. "Without you around to saw me, I'll just go to pieces."

"Maybe you can find somebody else to saw you," Snartch consoled her. "A nice young girl like you. Anybody would be proud to slice you up."

She sobbed after him as he collected his belongings.

"It won't be the same," she moaned. "No matter what happens, I'll always be thinking of you and how you dismembered me."

"Take this, kid," said Snartch, pressing a handful of gold pieces into her palm.

"Where are you going?"

"To my country estate," Snartch told her.

"Country estate? You haven't got a country estate."

"I will have," Snartch grinned. "Soon."

And he did.

SNARTCH went to the realtor's office. From there he proceeded to a haberdasher's, and ordered one hundred suits, to be delivered at the ad-

dress of his new country estate. On a sudden impulse he went out and bought a yacht. Not that he needed one—he just felt like it. Besides, one of his suits was a white tropical that went well with a yacht.

After that, he invested in a limousine, a roadster, a diamond-studded wrist watch, and five hundred cases of Scotch whiskey.

All of which was to be sent C.O.D. to his new address. He felt very pleased by his day's work, and decided to relax in a night club.

He relaxed very pleasantly there. Anybody who tips waiters with twenty-dollar gold pieces can get excellent service.

Jeffrey Snartch woke up the next morning with a definite hangover. He was in bed at his new estate, and he wanted to stay there.

But the doorbell began to buzz at nine o'clock, and kept buzzing all day. Delivery men and drivers began to arrive with his new possessions, and Snartch stood at the door paying off in cash. All in all, he managed to get rid of a lot of money. The men came to sign over the house, and somebody else arrived to report that his yacht was ready in the lagoon.

Snartch paid with a smile, though his head buzzed. Finally the tumult and the shouting died. He lay down on the sofa to enjoy what remained of his hangover.

And then the doorbell rang again.

Snartch answered it.

A pugnacious-looking truck driver greeted him with a truculent sneer.

"What is it?" asked Snartch.

The truck-driver scowled. "I was here earlier today," he g r o w l e d. "Brought yez that there Scotch."

"What about it? I paid you, didn't I?"

"Yeah. Yez paid me, all right. In marked bills."

"Marked bills?"

"Sure. Look." A grimy hand held out yellow currency. Mr. Snartch examined it. Yes, it was marked, all right.

"Where'd yez steal it?" muttered the truck driver.

"Steal it?" gasped Mr. Snartch. "I didn't steal anything."

"This dough is stolen!" barked the truck driver. "Take it back."

"Wait a minute," Snartch gulped. "The phone is ringing."

It was. He trotted down the hall and answered. The voice on the other end of the wire belonged to the man who had sold him the yacht.

"Mr. Snartch?"

"Speaking."

"You bought a yacht from us for $200,000? Remember?"

"That's right."

"You paid cash."

"Why not?"

"Mr. Snartch, where did you get that money? We've just checked the currency and found it marked."

"I—I—"

"Mr. Snartch, did you know that it is necessary for us to report such bills to the Federal authorities? They plan to call on you this afternoon regarding this matter."

"Fine," said Mr. Snartch. "Swell. I'll expect them. I'll bake them a cake."

HE HUNG up. Down the hall he saw the truck-driver muttering over his money.

Mr. Snartch shrugged and sighed. He couldn't explain this. Something was wrong. But he didn't want to explain it, or find out what was wrong. All he wanted was out.

Mr. Snartch tiptoed into the library and got out, through the window.

He sneaked into his limousine and drove down the drive. Then he tore hell-for-leather into town.

He registered at the hotel where he had conjured up the demon. Then he went out and bought some supplies.

Promptly at midnight that night he evoked his supernatural side-kick.

The demon crouched outside the chalk pentagon in the gloom and sighed wearily. But Mr. Snartch did not show any pity. He did not invite the demon to sit down. He didn't even offer a drink. He just stared and tapped his foot accusingly.

"You sent for me?" rasped the demon, at length.

"You know I did," Snartch snapped.

"What do you desire? Is there anything wrong?"

"You know what's wrong."

The demon blushed a deeper green. "Oh. About that money, I suppose? I can explain that. You see, I—"

"Never mind," said Mr. Snartch, bitterly. "The deal's off. Breach of contract. You know I'm in the right."

The demon squinted at him. A difficult thing to do, for the demon had no eyelids.

"Wait a minute," he said, softly. "Wait a minute. Money isn't everything, you know. We could work something out."

"What?" said Mr. Snartch.

"Power," purred the demon. "You want power, perhaps? A lot of men are eager for power these days. Take that fellow Hitler," he hinted.

Mr. Snartch made a face. "Not for me," he said abruptly. "Power like that wouldn't interest me a bit."

"How about—women?"

"Women?"

"I could get you the most beautiful women of history," the demon coaxed. "Think of it! Helen of Troy. Cleopatra. Du Barry. Madame Pompadour. Josephine."

"You could?" said Mr. Snartch. He was thinking of Myra. Anything would be a relief after Myra.

"How would you like to be a great lover?" hinted the demon. He was on the right track now, and he smelled a sale. He hurried to close the deal.

"Gorgeous girls," he chanted. "Fond blondes. Brunette pets. Redheads galore."

"Yes," said Mr. Snartch, suddenly. "Yes. I'd like that."

"Of course," said the demon, glibly, "this is a special deal, and it will mean that your time is shortened. Instead of a six-month contract I must reduce my offer to three months."

Mr. Snartch smiled.

"That will be all right," he said. "Take back your money and bring on the girls."

The demon nodded.

"No more tricks, though," warned Jeffrey Snartch.

"Cute tricks," giggled the demon. Then he disappeared. Only the giggle remained.

Snartch cleaned up the mess thoughtfully and went to bed.

AS A RESULT of his hangover and unusual exertions, he slept more soundly than usual. To tell the truth, when he awoke it was night once again. Mr. Snartch had slept the clock around.

He rose, blinked, and went into the bathroom to shave. After shaving he bathed, leisurely. By the time he was dressed it was almost nine o'clock. He stepped back into his hotel room.

Then he reeled back into the bathroom.

Sitting on Mr. Snartch's bed, chair, and bureau, were six girls. Two blondes, two brunettes, and two redheads.

All were of different types. Short, tall, fat, lean, frail, husky. But all had one thing in common. A costume consisting of rhinestones. A few here, a few there. But the costumes were similar.

So were the scowls on the faces of the girls.

Mr. Snartch staggered in the doorway. They looked up at him.

"All right," demanded a tall redhead, in a husky voice. "What's the big idea, mister?"

"Why, don't you know what the big idea is?" asked Mr. Snartch.

"No, we don't," insisted the redhead. "Here we are, sitting in our dressing room getting ready for the first floor show, when this guy shows up with a gun—"

"What guy?"

"How should I know? He wore a mask. Besides, he didn't give us a chance to look at him. Just made us go out the back door and climb into a taxi. Then he drove us here, took us up the freight elevator, and smuggled us into your room. He locked the door from the outside."

"K i d n a p e r," screeched a little blonde. "That's what he was. A kidnaper."

"Taking us from the night club," complained a plump brunette. "Dragging us here at the point of a gun. And I suppose you're a white slaver."

Mr. Snartch received these revelations in dismay.

"Girls, please!" he said. "Let me explain—"

"Nuts to your explanations! Let us out of here!"

The redhead rose and faced him.

"But—" said Mr. Snartch.

It was the wrong word.

The redhead lowered her head and butted him.

"Come on, girls!" yelled the blonde. "We'll show this big bully!"

WHAT happened then was very painful. Six women went for Mr. Snartch in a big way—but not the way he had anticipated. They went for him with hair-brushes and mirrors and pitchers and picture frames and other loose articles. They went for him with their teeth and nails.

They left Mr. Snartch lying on the floor with a Gideon Bible on his chest. And he was almost ready for it.

He recovered nearly an hour later. The girls had left, taking the door from its hinges *en route.*

Mr. Snartch had barely the strength to totter downstairs and buy fresh candles, frogs, and grape juice. He could scarcely manage to tear up some more roots and draw his chalk pentagon. His voice was hoarse as he chanted the Latin invocation.

But he made it.

And the demon appeared.

It squatted malignly before him, and Mr. Snartch thought he detected a mocking gleam in his eyes.

Gleam or no gleam, Snartch was too angry to hesitate.

"Now you've done it," he grated. "Those women — come clean now, where did you get them?"

"What's the matter?" asked the demon.

"You know very well!" yelled Mr. Snartch. "Famous beauties of history —bah! You stole a bunch of chorus girls from a night club, didn't you?"

"Well—"

"Damned right you did!" screamed Mr. Snartch. "Just a common kidnaper, that's what you are."

"But you asked for women—"

"Another thing," Snartch continued, ignoring the demon's words. "I've just figured out about that money, too. It's all here in this morning's paper.

About the bank that was held up. No wonder the currency was marked. Hot money, that's what you gave me."

The demon hung his head.

"Why?" groaned Mr. Snartch. "Why? That's all I want to know."

THE demon faced him, his skull-like features contorted.

"Because I'm old, that's why. Because I'm old, and out of practice. I haven't got the stuff any more."

"The stuff?"

"The power. Everything passes with age, you know."

The demon sighed, heavily. Windows rattled.

"I used to be omnipotent, almost. Like the book says. I could do anything, bring you anything, grant any wish. But now I'm all through.

"I did my best for you, though. I couldn't produce wealth for you as I used to, so I went out and stole it. And I couldn't evoke beautiful women for you, so I stole them. Thought you wouldn't find out. But you did."

"Yes, I did." Mr. Snartch was stern. "Of course, you realize this makes our agreement null and void."

The demon sat up.

His claws scraped restlessly against the floor. His lips drew back in a bony grin. He hunched closer across the flickering shadows.

"Oh no," he droned. "Not at all."

"You mean?"

"In three months you die. You give me your soul."

"Now listen here—"

"You listen to me." The demon crept closer. "I kept my part of the bargain. I brought you a million dollars, didn't I? I didn't say where it would come from or who it might belong to. You got your money."

"Still—"

"Keep still!" The demon grinned wickedly. "You changed your mind. You wanted women. Blondes, brunettes, redheads. I gave you blondes, brunettes, redheads. I didn't specify that they would like you. But I brought them. And so, Mr. Jeffrey Snartch, I am holding you to your bargain. In three months I will claim your soul."

Mr. Snartch drew himself erect. He shrugged.

"Very well, demon," he sighed. "You asked for it, I suppose."

"What?"

"I had hoped to spare you this final humiliation for a while," said Mr. Snartch. "Out of consideration for your age."

"What do you mean?"

"You are very old, demon. Otherwise you wouldn't make such a mistake when you signed the contract with me. You would have looked my name up first. But you didn't. You wanted my soul and tried to cheat me. Instead, I cheated you. You don't get my soul after all."

"Why not?"

"Because," said Mr. Snartch, slowly, "I sold my soul to the Devil two years ago!"

The End

ARMY DEVELOPS NEW BUTTER

SINCE the American soldiers over seas like plenty of butter in their food and the number of refrigerated ships that can be used to bring it to them are few, the Quartermaster Corps decided to do something about it. The result is a new type of butter developed by Lt. Col. Robert F. Carter of the Quartermaster Corps and is called "Carter Spread."

It is made by fortifying regular butter with hydrogenated cotton seed oil flakes so that the "butter" will stay solid and unspoiled in temperatures up to 110° F. The best thing about it is that it still tastes like butter—which should win the boys' approval.

« « SCIENTIFIC ODDITIES » »

By LYNN STANDISH

Science uncovers more of these "true" oddities every day!

THOSE REMARKABLE "CAT'S EYES"

THE "spooky" appearance of the black cat in most mystery thrillers is usually the direct result of his "luminous" eyes. Why can we see these reflections in a cat?

Scientists say that the luminous appearance of a cat's eyes in the dark is caused by the reflection of light by the *tapetum lucidum,* a layer which lies between the retina and the outer covering of the pupils of the eyes. This remarkable membranous layer is a distinct differentiation from the choroid coat only in certain animals. It is this tapetum lucidum which is said to facilitate seeing when there is very little light. One explanation given is that this layer can reflect light rays through the retina a second time.

In your household cat, the tapetum lucidum is a brilliant green or blue in color and usually shines as a piece of metal. The well-known glare is especially noticeable when artificial light is thrown on a cat in a dark corner, or when a cat in a dark place is observed through an opening, light entering the darkness through the opening being reflected from the cat's eyes as from a mirror.

These objective observations will, no doubt, help you sit through your next horror thriller without a shudder!

* * *

INSANITY CURE

ACCORDING to Dr. Abraham Myerson of Boston, a mild electrical shot will jolt patients that have become depressed and inclined towards suicide back to normalcy. The contacts are made on the sides of the forehead and then a current from 100 to 400 thousandths of an ampere is allowed to pass for less than a half-second. This treatment is very similar to a treatment for shell shock developed in Germany during World War I, but in the latter treatment the shock was administered by means of contacts held in the patient's hand.

* * *

DINOSAUR REMAINS IN CAPITAL

WHEN workmen found a huge bone while making an excavation for the new filtration plant, they thought some Senator's dog was guilty of hoarding. But further examination showed it to be fossilized and Dr. Charles W. Gilmore, curator of vertebrate paleontology at the U.S. National Museum, has identified it as being the broken upper part of a huge saurian thigh bone. These dinosaurs belong to the sauropod group and lived over 150 million years ago. This is the third time dinosaur bones have been found in Washington which proves rather conclusively that dinosaurs once roamed over what is now our nation's capital.

Dr. Gilmore estimated that the bone belonged to a dinosaur about ten feet high at the hips, and about sixty feet in overall length, and weighing ten tons. Workmen have been asked to keep a sharp look-out for any other fossils they might uncover.

* * *

AN "AUTOMAT" FOR MONKEYS

APES can do astonishing things. Some of their activities, as seen in zoos and circuses, have impressed people with the remarkable similarity between these accomplishments and those of humans at play. In comparison with other animals, those in the monkey world seem to be the most intelligent, the most rapid learners. The ape, as a result, has been called man's closest competitor.

An amusing illustration of the ape's ability to learn is in the case of the "chimpomat." The "chimpomat" is a food-dispensing machine, with which chimpanzees have been taught to get familiar. The chimps readily learned to get food by inserting poker chips into the appropriate slots, to distinguish different sizes and colors, to use each chip in the appropriate opening, and, where necessary, to insert two chips.

The scientist responsible for this experiment didn't state, however, if each chimpanzee carried his own tray of food or if each paid his own check. "Aw, monkeys aren't so smart after all!"

* * *

A HEAVY EATER

ONE of the heaviest eaters in the world is the large lubber grasshopper. This insect sometimes attains a length of three inches. The grasshoppers settle themselves down on anything green and commence to dispose of it in an orderly, but rather rapid, fashion. If a flock of these gluttons invades a beautiful garden on an early spring morning, it will be far from beautiful when night comes.

While these insects are capable of inflicting terrible damage on crops and gardens, they are rather slow in getting about. It is possible, therefore, to catch these "big fellows" and eliminate them if the proper equipment is on hand. If they were able to fly and move about rapidly they would, of course, be a much more serious threat to farmers.

Although these insects possess a rather gorgeously colored skin, they have a peculiar, disagreeable odor which usually even impels the otherwise heavy eater, the chicken, to pass them up.

Wrathfully, Kirk shot pebbles at Mr. Smith

GOLD RUSH on CALLISTO

By RUSSELL STORM

MR. SMITH sang, *"Ho for the life of a miner!"*

His thin, reedy voice squeaked like the door of a rocket ship swinging in the wind. It was not a melodious voice and the singing was not beautiful but Mr. Smith liked to hear himself sing and he assumed that everyone else liked to hear him sing too. He was sitting on a rocky ledge jutting from the side of a hill on Callisto, one of Jupiter's moons. Mr. Smith was a native of Callisto. This was his home world. He was happy here. Near where he was sitting there was a hole in the ground and down in the bottom of the hole, Toby Kirk, Mr. Smith's owner, master and god, was fretfully pounding rocks.

Toby Kirk was not happy. He had

come to Callisto to become a prospector and find his fortune. He had become a prospector but he had not found his fortune. Toby had made only one discovery, that prospecting was hard work. Back-breaking, callous-forming, profanity-inspiring work. But to Mr. Smith, who had adopted Kirk upon the latter's arrival on Callisto, and whose "work" consisted of opening a bag of sugar cubes tied around his neck, and singing, prospecting was fun. He enjoyed it. He burst again into song.

"Ho for the life of a miner!"

"Shut up!" Toby Kirk snarled.

Mr. Smith lapsed into hurt silence. "I was only singing," he muttered.

Toby wiped perspiration from his face. "I sweat blood down here in this hole and you sit up there and gorge yourself on sugar, and sing," he said bitterly.

"Eating sugar and singing is a lot better than digging a hole in the ground!" Mr. Smith stoutly answered.

As a matter of theory, Toby knew the velot was right. But as a matter of fact, he also knew that if he didn't dig a hole in the ground and strike pay dirt pretty soon, two of Callisto's residents would soon find themselves out of sugar and beans! No beans for Toby; no sugar for Mr. Smith. But he knew he could not explain their desperate plight to the velot. Scientists who had examined the little fur-covered natives of Callisto were never able to decide whether the velots were intelligent animals or dumb humans. The velots could talk, they aped human speech perfectly, they seemed to have quick, clever brains, but there their resemblance to humans stopped. Velots would not work. They were not intelligent enough to understand the relationship between work and food. Or maybe they were too intelligent.

"Anyhow," Mr. Smith continued, "I've heard you do some singing. Back in Dogskin Camp, I heard you sing, 'Glorious, oh glorious! There's four kegs of beer for the four of us.' You were singing that very song when the girl came looking for you."

"I only had a couple of beers," Toby muttered defensively.

"That wasn't what the girl said," Mr. Smith answered. "She said you were stewed."

"Well, I wasn't. Anyhow a man's got to have some relaxation."

"You relaxed all right," the velot agreed. "Oh, I admit two of Joe's bouncers relaxed before you did, but after the third bouncer tapped you with that bungstarter, you were relaxed for a couple of hours. What was that stuff you were drinking, boss, to make you think you could lick all the thugs in Dogskin Camp?"

"We were just having a little fun," Kirk answered. "One of the bouncers got smart and pushed me, and I pushed him back, and—"

"I saw it," Mr. Smith said. He paused and looked thoughtfully at his master. "What was the matter with the girl after that? You'd been getting along fine with her. Then you had what you called *fun* in that saloon. Then the big frost came. Was she mad because you got licked?"

MR. SMITH had never been able to understand the intricate relationships between human beings. And about girls, he especially did not understand. Neither did Kirk. The latter kicked viciously at a loose pebble in the bottom of the hole. "She thought I was stewed," he said.

"And of course, you weren't!" Mr. Smith said, mock sympathy on his round, furry face. "You are just a poor, misunderstood boy. Hey!" The velot ducked out of sight, but his reedy

voice, tinged with profanity, came floating back. "Cut it out. You darned near hit me with that rock."

"I meant to hit you," Kirk answered. He picked up another pebble, sent it whizzing in the general direction of the profanity. "Darn you, Mr. Smith. I'll teach you to sass me."

"Boss," the velot wailed. "Cut it out."

There was a note of urgent pleading in the velot's voice, but Kirk ignored it. "Spare the rod and spoil the child," he muttered. He sent another rock whizzing upward, hoping it would drop near Mr. Smith. He didn't really want to hurt the velot, he thought the world of the soft-furred little creature. But he knew if he was lax on the discipline, Mr. Smith would become increasingly difficult. He sent a cascade of pebbles upward and gasped in frantic horror as Zenith Jones looked down into the hole and one of the pebbles skipped within inches of her face.

Zenith Jones was a girl. *The* girl, so far as Kirk was concerned. The daughter of one of the first prospectors ever to land on Callisto, she had been born in a mining camp and from the time she was able to walk, she had followed her father over the rough trails of the grim little world. The name Zenith had been bestowed on her by her fond parents, who thought she was about the top of everything, an opinion shared by every prospector on Callisto.

"Zenith!" he gasped, climbing out of the hole. "Miss Jones! Where'd you come from?"

The last time he had seen her had been in Dogskin Camp, and the frost had been on.

"Zenith! Miss Jones—" He saw Mr. Smith. "Why didn't you tell me she was coming?" he demanded. As look-out, the velot should have reported the presence of visitors.

"I tried to tell you she was coming," Mr. Smith explained. "You were too busy throwing rocks to listen."

Down at the bottom of the slope, he saw her tank-truck, a vehicle with the tracks of a tank on the rear and the wheels of a truck on the front. Prospectors found these vehicles invaluable in traversing the rough country of Callisto.

To his great surprise, he discovered that Zenith was smiling at him, actually smiling. When he had seen her last, she had given him the impression that she would never even look at him again, let alone smile.

"Watch that smile, boss," Mr. Smith warned. "When a woman smiles, there's trouble in the wind."

"Why, Mr. Smith," the girl said. "You don't seem to trust me!" Her tone implied that the velot had no honest grounds for his distrust.

Mr. Smith was unimpressed. "Poppycock," he said bluntly. "You can feed that stuff to the boss but not to me."

She seemed to recognize the wisdom in what Mr. Smith said. She turned to the boss. "Toby," she asked breathlessly, "have you found anything?"

Toby! She was calling him by his first name! "I found a surface outcrop of quartz," he gulped, "and followed the vein down for about twenty feet, but it didn't show anything." He didn't add that he had blistered both hands and almost broken his back in the effort. Zenith was a first-class prospector. She could tell at a glance how hard he had worked. Maybe, when she saw how deeply he had dug, she would recognize he was worth something after all.

ZENITH swept the quartz vein and slope of the hill with an expert eye. "You should have gone down to the bot-

tom of the hill," she explained. "The vein of quartz crosses the hill. You would have found the same vein cropping out at the bottom of the slope and you could have saved yourself all the trouble of digging a prospect hole."

Toby Kirk's knowledge of prospecting was almost nil. All he knew was that prospectors dug holes. If they found ore in the holes, good! If they found nothing, they dug somewhere else. His face began to turn red at the thought of Zenith discovering and calling attention to his inexperience.

"He knew all the time he could do that," Mr. Smith suggested. "He dug the hole because he likes to dig."

"Shut up!" Kirk snapped.

Zenith looked at Kirk's red face. She saw instantly she had made a mistake in pointing out his error in digging the shaft. No man likes to have a girl show him she knows more than he does.

"Toby, I think you dug a perfectly wonderful prospect hole," she said quickly.

"Aw," Toby said.

"It's one of the best holes I have even seen," the girl said firmly. "And you dug it all by yourself! That's wonderful."

"Do you really think so?" Kirk asked.

"I do indeed!" the girl said.

Mr. Smith snorted in disgust but he didn't say anything.

"Toby," Zenith said, "I went into Dogskin Camp for supplies a couple of hours ago. The camp was almost deserted. Not ten people were left in it. You know what that means, don't you?"

From the tone of her voice, he gathered that it was supposed to mean something important. Toby tried to think what it might mean. He thought of plague, a sudden raid by space pirates, but he couldn't think of any reason why the fierce little mining camp should be deserted. "The boys all get in a fight and knock each other off?" he suggested hopefully. From his own knowledge of the camp, this struck him as something that could happen.

"No!" Zenith snapped. "Oh, Toby, don't you know anything about this country at all? It means somebody has made a strike. There's a gold rush on, a stampede to a new gold field."

"The heck it does!" Toby gasped. He had never seen a gold rush but he had heard about them. Prospectors rushing madly across barren wastes. Mining camps were often deserted down to the last man at the news of a new gold field. The entire crews of space liners had been known to jump ship and join such stampedes. The gold rush to California, to the Klondike, were being repeated in the worlds of space. Toby felt excitement grip him as he realized what Zenith's story meant. He needed to make a strike of some kind. Maybe she would take him on this gold rush. Maybe this was why she had come to tell him the news, so he could go along! His heart leaped at the thought.

"Where is this new strike?"

"In the Corner of Hell Mountains," Zenith answered. "In the Little Corner, not the Big Corner. I talked to the owner of the bar where you—" She suddenly checked herself and stared icily at Toby. "He told me where it was. The news came in this morning and everybody cleared out. Two tank-trucks are leading the stampede but most of the miners are on foot; and even the tanks can't get there until late today. I thought that we—that we—"

INVOLUNTARILY she looked toward the top of the hill where a battered, but still serviceable space boat

rested. Toby Kirk owned the little space flier.

"I get it," Mr. Smith spoke. "Now I know why she's so sweet and sticky. She thinks if you will give her a lift in your space boat, you can beat the stampede to the gold strike."

"I did not!" Zenith answered, blushing hotly. "I just wanted Toby to have the tip." She glared at the velot.

Mr. Smith glared back at her. On general principles, he objected to women. "Boss," he said, "which would you rather do—dig a hole here or dig a hole in the Corner of Hell Mountains? You pay your money and you take your pick—"

"We're going to the mountains," Toby said decisively. "Golly, Zenith, how can I ever thank you?"

"Did—did you say 'we'?" the girl said breathlessly. "Does—does that mean you're going to take me too? If—if it does, that's the way you can thank me."

"Of course I'm going to take you!" Toby answered. "I'll help you get your supplies out of your tank. We'll lock it and leave it here. Then we'll blast off." There was exultation in his heart. Zenith had hunted him up to tell him about the gold strike.

While the two humans were unloading the tank, Mr. Smith made certain that his own "supplies" were in good shape, said supplies consisting of a bag of sugar cubes around his neck. Opening the bag, he looked in it. A forlorn expression appeared on his face. Only a few cubes of sugar remained in the bag. The rest of the lumps were pebbles. Every time Mr. Smith removed a lump of sugar from the bag, he replaced it with a pebble, it being his theory that if the bag *seemed* full of sugar, he would be happier. Mr. Smith had little interest in facts. Theories suited him well enough. If the theory was obviously false, no matter, so long as it made him feel good. The velots were a strange race, but not as strange, Mr. Smith considered, watching the way his master was grinning at Zenith, as humans. Toby was acting like a fool, Mr. Smith thought. But that didn't matter. If it made his master happy to have a woman around, Mr. Smith was willing to put up with her presence. He scurried up the hill after Toby and Zenith.

"Get your hands up!" a harsh voice said.

Mr. Smith, looking up, saw that four men were standing in front of the lock of the space boat. Where they had come from he didn't know, unless they had sprung out of the ground, but they were there, and from the size of the heat guns in their hands, they looked as if they meant business.

TOBY KIRK didn't know where they had come from either. He suddenly looked up and saw the heat guns pointed at him. He was too surprised to be scared. Besides, he immediately recognized two of the men. One of them, a miner named Mike, had sung a very fair baritone in the quartet he had organized in Joe's Bar, back in Dogskin. Another was the bouncer who had used the bungstarter on him, a chap named Buckskin. They were not, Toby figured, exactly his friends. But anyhow he knew them.

"What is this, a hold-up?" he snapped.

"Naw," said Buckskin, rather uneasily. "Nothing like that. Not if you're reasonable."

"We thought—" the miner named Mike began.

"Put down those guns!" Zenith snapped. "The patrol will have you fellows in jail if you try to hold us up."

"Shut up!" Toby hissed at her. "If

you start talking about the patrol, they may shoot us just to hide any evidence against them. Besides, I know two of them."

"I might have guessed they would be friends of yours," the girl said bitterly. "They look like they belonged in saloons."

"What do you want?" Toby asked.

"It's this way," Buckskin explained. "There's a stampede on. We won't get to the strike in time if we have to walk. So we thought—being as how you got a nice little space boat and will probably be going too—that we would just see if you wouldn't give us a lift. Since you might not want to listen to us, we thought we had better get the drop on you first. But this ain't a hold-up, is it, men?"

His three companions shook their heads. "No. No, sir. Never. Not if you're reasonable, anyhow."

Toby looked at the men. He looked at the guns. "Looks like we're going to have company," he observed.

"Don't take them!" Zenith objected. "They're only bluffing. They won't dare shoot."

"The heck they won't!" Mr. Smith wailed. "Don't pay any attention to this woman, boss; she'll get us all killed." The velot was frantic with anxiety. Extremely peace-loving, he hated trouble of any kind. Especially he hated guns. "Take these buzzards with us, boss," he begged. "If we don't take 'em, they'll shoot us sure."

Buckskin looked at Mr. Smith. "For a danged velot, that critter talks a lot of sense," he observed, shifting his chew of tobacco to the other side of his jaw.

"Gentlemen," Toby said, looking at the men, "It will be nice to have your company."

"Thanks, bub," said Buckskin. "You sure saved yourself a lot of trouble."

Toby was annoyed. The presence of these men would make impossible the love-making he had hoped to find time for. He blasted the ship into the air with a viciousness that rattled his guests' bones.

CALLISTO, first discovered on earth by a man who was an astronomer and a scholar, was given a scholarly name. But the men who went to the little world to blast a living from its inhospitable hills were not scholars. They were a rough, tough breed. They had to be rough and tough to survive. A gold rush brought out the roughest and the toughest of them.

Toby saw part of the gold rush from the air. As they neared the Corner of Hell Mountains, he saw miners loaded with camp equipment strung out for miles below them. The men on the ground saw the ship passing overhead, guessed its destination, and many a gloved fist was shaken at it. Once a heat gun thrust its twin beams toward them but they were too high for the weapon to be dangerous.

"Tough bunch of buzzards," Toby muttered.

"They know we'll beat them to the strike and they don't like it," Zenith answered.

"There's probably enough gold for everybody."

"There probably isn't," the girl denied. "If the field is small, all the worthwhile claims will be quickly taken up." She paused and glanced surreptitiously back at their guests in the main cabin. "Toby," she whispered, "if we take those men to the strike, we'll have to compete with them for the choice claims. It will be a dog-eat-dog fight to see who can stake his claim quickest. We may lose out."

"What can we do about it?" he questioned. "I can't just walk back to the main cabin and say, 'Sorry, boys, but

this is where you get off'."

He shuddered at what would happen.

"I've been thinking," the girl continued. "I know these mountains perfectly. I've been all over them. But Buckskin and his bunch of thugs don't know them. I've thought of a way to get rid of Buckskin and his men."

In a terse whisper, she outlined her plan. "We'll land at the first small mine we see. Buckskin and the others will think it is the strike. Since the first man on the ground gets first chance to stake a claim, they'll break their neck getting out of the ship. Before they discover we've landed at the wrong place, we'll take off again. They'll be left behind!" she triumphantly ended.

Toby stared in astonishment at her. "It won't work," he protested.

"It will work," she insisted. "Try it and see."

"If I try it and it doesn't work, I might just as well order my coffin," he pointed out.

The girl's eyes blazed. "Are you a man or a sissie?"

There was only one answer to such a challenge. I'll try it," Toby doggedly said. "But it's against my better judgment."

Mr. Smith entered the control room. The velot was in a bitter humor. He eyed the two humans. "Whispering, huh?" he grunted. "That means you've probably been thinking. When you humans start thinking, it's time to head for cover. Why oh why did I ever adopt you?"

ZENITH went back to the main cabin where she took a seat near the window and watched the rocky surface roll beneath the ship. Suddenly she pointed through the window. "There's the strike, Toby! Land the ship."

Her words precipitated a rush to the windows. Down below them, in a long winding ravine, was a tiny hut. Near it, two men were digging a prospect hole. The dump of freshly-blasted rock was plainly visible.

"That doesn't look to me like the strike," Buckskin said. "That's nothing but a couple of fellers."

"The stampede hasn't got here yet," the girl explained. "I know these mountains and this is the place. Land the ship, Toby," she shouted, swinging her pack to her back.

There was pandemonium in the cabin as the prospectors grabbed their packs, shovels, and picks. Zenith then moved to the lock, prepared to jump as soon as the ship landed. As a woman she was given the privilege of starting first. That was the only privilege she was granted. After she started first, she would either have to move faster than anybody else or get run over.

Toby landed the ship. He was too busy in the control room to watch what was happening but he heard the stampede start, the clank as the cabin door was kicked open, and the clatter of hob-nailed boots on steel plates as the miners raced from the ship, each intent on staking a claim and setting up location notices.

"Well, they're off," Mr. Smith said. There was a gloomy tone in the velot's voice. "I bet this doesn't work the way the girl figured it would."

"Don't be a crape hanger," Toby said. He ran back to the main cabin. Through the open door he caught a glimpse of miners rushing down the little slope toward the open mining pit. Then his view was blocked as Zenith appeared in the door. She had not taken part in the race but had merely stepped aside and let the others pass her.

There was triumph on her face. "I

told you it would work!" she said, gesturing toward the running miners. "Those thugs don't know these mountains like I do. They think they'll find the new gold strike down there, but all they will really find will be a couple of fellows digging a prospect hole."

"By golly," Toby said admiringly, "it did work. That was mighty smart thinking, Zenith."

"Thank you," the girl answered. "Blast off again and let's get back to the Little Corner of Hell, where the real strike is. Oh! What was that noise?"

The noise was a creak coming from the door of the engine room located in the rear of the ship. The door swung open. Buckskin stood there. He had a gun in each hand.

"Well!" he said.

"Where did you come from?" Zenith gulped. "I thought you went with the others." There was panic in her voice.

"I saw you two whispering," Buckskin said. "And I figured you were up to some trick. I thought I would just wait around and see what it was. Hah! So you thought you would maroon us, did you? You thought you would dump us out here while you two went on to the real strike?"

THERE was silence in the ship. Zenith and Toby were both staring at the guns the thug was holding. They had tried to trick Buckskin and he had caught them in the act.

"W-wh-what are you going to do?" Zenith whispered.

"I ought to shoot you!" Buckskin snarled. "But I'm not. I'm going to give you another chance. Get the ship into the air and head for the real strike, pronto!"

"Wh-what about your pals?" Toby asked.

The thug grinned. "They seemed to like it here," he said. "We'll just leave them to enjoy the scenery. But *you*." The guns centered on Toby's wishbone. "Blast this ship away and be quick about it. And if you try another trick, it will be the last stunt you will ever try. Get moving."

Toby looked at Zenith. His mouth was working but he didn't say anything. Wiping the sweat from his forehead, he went forward to the control room. Mr. Smith was waiting for him there.

"What did I tell you?" Mr. Smith began.

"Shut up!" Toby snapped.

An hour later, under Zenith's guidance, they reached the range of mountains known as the Little Corner of Hell.

"If you should make a mistake in guiding us," Buckskin said, "I feel sorry for what is going to happen to you."

"I won't make a mistake," the girl snapped. "I know these mountains perfectly. The gold strike is right under us. Keep on the lookout for a prospect hole. There it is!" she said, pointing to a small shaft with a pile of rock beside it.

A wide stretch of ragged hills lay below them. The only sign of life was the prospect hole and a small tent pitched beside it.

"Well, we beat the stampede here," Buckskin said, surveying the scene below them. "Set her down, buddy. We'll just get ourselves some claims staked out."

"A-are you going to let us stake out claims too?" Zenith asked.

"Why not?" Buckskin asked. "I can only stake out one claim. You're welcome to what's left. Of course," he hefted the guns, "you understand I get first choice."

Buckskin, now that they had reached the scene of the strike, was in a good humor. Toby landed the ship. A few minutes later all three of them were busily engaged in staking claims. The prospect hole was located on a ledge of quartz. The owner of the mine and the tent pitched beside it was not present but his location notices were plainly visible, marking the limits of his claim.

"He's probably gone to patrol headquarters to file notice of his claim," Zenith said. "We can locate on either side and be within our legal rights."

The air of tension that had been present was gone now. An air of good-fellowship prevailed, a willingness to let by-gones be by-gones. Even Buckskin, after he had staked his claim, holstered his guns and expressed his appreciation of the favors done him.

"Sure want to thank you for guiding me here, Mis Zenith," he said happily. "I never would have been able to find this place if it hadn't been for you. And I want to thank you, Toby, for bringing me in your ship. I never would have got here in time if it hadn't been for you. Sure do appreciate it."

"Think nothing of it," Toby airily said. He saw now that Buckskin wasn't such a bad guy. He grinned at the thug. There was a general feeling of peace and forgiveness. Mr. Smith was the only one who retained his air of gloom. The velot looked depressed. "When you humans start having a love-feast, it's time to start looking for cyclone cellars," he announced.

"Don't be a kill-joy," Toby told him. "Everything has worked out fine." But the velot refused to be convinced.

"HELLO, strangers!" a voice roared from the slope above them. Looking up, they saw a man coming toward them. His clothes were ragged and torn and he looked as if he hadn't had a square meal in months.

"I'm the owner of these diggings," the man announced, coming up to them. "And I'm danged glad to have some company. Ain't seen a soul in three months. Hey! What's this for?" His eyes fell on the location notices they had set up around his claim.

"We haven't intruded on your claim," Zenith told him. "We are within our legal rights in setting up claims at the boundaries of the mine you have discovered."

The man stared at her. "Hell, lady, I ain't disputin' that!" he burst out. "As far as I'm concerned, you can stake claims any place you dang please. But what I want to know is—*why did you stake 'em here?*"

"Because this is where the strike is," Zenith told him. "This is the Little Corner of Hell and there's a gold strike here and you've made it."

The man stared at her as if he did not believe his ears. "The Little Corner of Hell," he said, pointing in the direction from which they had come, "is a hundred miles over in that direction. This, lady, is the Big Corner of Hell. And as for there being a strike here, hell, lady, I've been working this hole for the past three months, *and I haven't taken enough gold out of it to fill a hollow tooth!*"

The words rang in Toby Kirk's ears like strokes of doom. He instantly realized what had happened. Zenith had made a mistake. The place where they had first landed, where they had thought they were marooning the three miners, was where the real strike was located. This mine was only a worthless prospect hole.

Zenith, in spite of her supposed perfect knowledge of the mountains of Callisto, had taken them to the wrong

place. Toby stared at her, his mouth working. He started to snarl and changed his mind. She looked as if she was going to cry at any minute. And a voice roaring behind him reminded him of a momentarily-forgotten source of danger.

"Double-crossed!" Buckskin was shouting. "I've been tricked. I've been guided to the wrong place!"

Toby whirled. Buckskin was drawing his guns. A dozen desperate plans flashed through Toby's mind. He might try to jump the thug, but he knew that before he could move Buckskin would put a heat beam through him. Sweat popped out on his body.

"I'll fix you for this!" Buckskin grated. "Both of you. Then I'll take your ship and guide myself where I want to go. You can't double-cross me and get away with it."

No amount of explanation, Toby knew, would convince the thug he had been the victim of an honest mistake. Buckskin lined up the sights of his guns. There was nothing Toby could do. He tensed his muscles to leap desperately at the thug, then caught himself in the nick of time.

"Drop those guns!" a voice had squeaked.

It was a voice that Toby recognized. He sought the source from which it came. And saw Mr. Smith standing directly behind Buckskin. Mr. Smith's teeth were bared in a ferocious snarl.

His courage was amazing. He was facing sudden death in an effort to help his master.

"Drop those guns or I'll bite you!" the velot squeaked.

Startled, Buckskin looked around. He saw the velot. It was the last thing he saw in a long time. Toby's fist rammed home under his ear. Buckskin turned a complete flip in the air. When he hit the ground, he didn't move.

"Holy Pete, boss!" Mr. Smith gulped. "When you hit 'em, they really stay hit!"

"You're the one who made it possible," Toby said. "If you hadn't had the courage—"

"Courage!" Mr. Smith squeaked. "What are you talking about? I'll be a nervous wreck for the rest of my life. And don't stand there telling me what a great guy I am. Get back in the ship and burn the wind back to the real strike. Maybe we can get there quick enough to make up for the mistake—"

THEY "burned the wind" back to the place where they had dropped the miners. If only they could get there in time! From the air they saw the answer to their question. The ravine was swarming with miners. Because of their delay, the stampede had reached the gold strike ahead of them. Every available foot of ground had already been staked. Toby landed the ship. Silently they went down to the strike. The whole hill was covered with miners. Silently they went back to the ship.

"The gold is there all right," Zenith said. "But it's a small vein and every inch of ground has been staked. We're left out in the cold. And it's all my fault."

She looked so miserable that Toby felt sorry for her. "Forget it, kid," he said gruffly. "You did the best you could. It wasn't your fault that we failed."

"But it was my fault," she insisted. "If I hadn't been so darned smart, we would have got here in time. But I thought I knew these mountains like a book—and—and—"

She no longer looked like an extremely efficient young woman. She

looked like a little girl who was alone in the world, a little girl who needed to be protected.

"Listen, Zenith," Toby said. "Look, kid, there's lots more gold in this world. We can find it. If we don't find it on Callisto, we'll find it on Io or Ganymede, or we'll try the asteriod belt. I mean, we missed once, but we won't miss all the time."

"'We,'" she queried tremulously. "Did you say 'we'?"

"I sure did," Toby answered. "Me and you. Us. We."

He had missed his chance for the gold but he had found something a darned sight more valuable. Zenith. His spirits soared to the sky. "Zenith," he whispered. "Zenith, darling—"

Mr. Smith saw what was happening. He was greatly impressed. The velot loved peace. He loved happiness. Guns and fightinng made him ill. But now his lord and master was happy. This made him happy, too. Happiness meant singing and eating sugar. He sang better with his eyes closed. Mr. Smith closed his eyes.

"Ho for the life of a miner!" he sang.

Not many hours earlier, Toby had been annoyed by that voice. But now he liked it. "Listen to the little rascal sing," he whispered. "Listen to him."

THEN he forgot about Mr. Smith as Zenith cuddled up close to him. He was suddenly reminded of the velot's presence. Mr. Smith quit singing and started swearing.

"Darn the darned thing to hell anyhow!" Mr. Smith raged.

"Hey, cut out that swearing," Toby vigorously ordered. "What's wrong with you anyhow?"

"I broke a tooth," Mr. Smith snarled. "I reached into my sugar bag for a lump of sugar but I had my eyes closed and I got a pebble instead. I clamped down on it and broke a tooth. Darn the thing anyhow!" the velot raged, flinging the pebble across the cabin.

"That's what you get," Toby said, "for feeding your face with your eyes shut."

Zenith looked at the pebble. She suddenly got off Toby's lap. She ran across the room, picked up the pebble, stared at it, then turned to Mr. Smith.

"Where did you get this?" she demanded.

"What's it to you?" Mr. Smith snapped. "I broke a tooth on the darned thing."

"Answer me!" She stamped the floor. "Where did you get this?"

"Back where the boss was digging that hole in the hill," Mr. Smith answered. "Back where you first found us. Why?"

"Because it's almost solid gold!" the girl screamed. "Because it must have come from one of the richest gold mines ever found. That's why." She was frantic with excitement.

Toby grabbed the pebble and examined it. "Golly!" he gasped. "There is a layer of these pebbles about two feet thick back where I was digging. I dug right through it. I saw the stuff but it didn't shine like gold and I didn't think—"

"I told you," Mr. Smith interrupted, "that the way to find a gold mine is not to think. That's what's wrong with you humans—you're always trying to think without having the equipment for it!"

THUS ends the true story of one of the richest gold mines ever found on Callisto. Toby had dug right through a layer of rock rotten with gold. Being an amateur prospector, he had thought that gold not only was al-

ways found in quartz but always shines. The truth is, gold ore never shines.

The mine was registered in three names: Toby Kirk, Zenith Jones, and Mr. Smith. It is known as the Mr. Smith mine. Mr. Smith has sugar to burn these days. He sits any place he pleases and sings as much as he wants to.

In the absence of any form of musical instrument on Callisto, Mr. Smith provided the music when Toby and Zenith were married, singing, *"Here Comes the Bride,"* with great gusto, if without any discernible musical talent.

VIGNETTES OF FAMOUS SCIENTISTS

By ALEXANDER BLADE

Guyot

He was the nineteenth century's leading geographer and geologist, his best known work being on glacial motion.

ARNOLD GUYOT, the Swiss-American geographer and geologist, was born at Boudevilliers, near Neuchâtel, Switzerland, on September 28, 1807. Before coming to the United States in 1848, he studied at the college of Neuchâtel and the University of Berlin, where he began a lifelong friendship with Louis Agassiz. From 1835 to 1839 he was a private tutor in Paris, and from 1839 to 1848 professor of history and physical geography in the College of Neuchâtel. He then went to America and settled at Cambridge, Massachusetts in 1848. In the same year he gave a series of lectures at the Lowell Institute, Boston. From 1848 to 1854 he was in the service of the Massachusetts State Board of Education as a lecturer, and from 1855 until his death was professor of physical geography and geology at Princeton University. He also held a lectureship in Princeton Theological Seminary from 1861 to 1866. Guyot died February 8, 1884.

As early as 1838 Guyot undertook, at Agassiz's suggestion, the study of glaciers, from which he announced for the first time certain important observations relating to glacial motion and structure. Among other things he noted the more rapid flow of the top than of the bottom of glaciers and described and gave the correct explanation of the laminated or "ribboned" structure of these rivers of ice, and ascribed the movement of glaciers to a gradual molecular displacement rather than to a sliding of the ice mass. He submitted a paper on his scientific investigation of the glacial age to the Geological Society of France, the first accounting of this phenomena ever to be given. This work was carried on by Agassiz and Forbes, and later by Tyndall. At the present time, almost entirely as the result of the studies of these four men, the work performed by ice in erosion, and by the Ice Age in the history of animal and vegetable life, has become fairly well understood.

Guyot was ranked high as a geologist and meteorologist and the system of meteorological observation which has made the United States Weather Bureau such an efficient organization is very largely due to him. The Weather Bureau established from his system of observation is the model upon which practically those of all the other nations of the world have been built. He also made extensive barometrical surveys of the Appalachian mountain chain, and prepared meteorological and physical tables of the eastern coastal plain of the country, which have been used ever since. Guyot explained the following phenomena:

In the footlights of a high mountain range, the snowfall of a winter ordinarily disappears completely during the following summer; but in the higher parts, where the precipitation has been greater and the summer heat less, there is often a steady accumulation. If this process went on indefinitely, it is evident that in due time the entire upper parts of ranges and high plateaus would be buried under sheets of ice for, as snow accumulates in depth it packs under the increasing weight, and changes gradually into ice. And this is actually what has happened in the interior of Greenland and other broad areas in the polar regions, where the slope of the surface is gentle.

Usually, however, a form of relief is provided. As the mass and weight increases, the ice begins to move downhill in all possible directions,

carrying with it, and imbedded firmly in its under side the gravel, sand and boulders of their slopes and on its surface such of the same materials as fall down upon it from higher parts. Thus the frozen stream becomes a gigantic rasp, or a section of very coarse sandpaper, each year cutting deeper and deeper into the bottom and sides of the gorge in which it flows.

When the river of ice reaches lower altitudes where summer temperatures prevail over those of winter, the ice melts, depositing the surface load of debris it has brought down from above, thus forming what are called lateral moraines, that is long lines of gravel sand and boulders on each side of its path, while at the end another mass of the same material is unloaded. So long as a glacier is advancing, that is, pushing its way out through the throat of a valley or ravine into lower altitudes where the slope of the surface is less, the former continue to grow in length and height, and no terminal moraine appears. But when, as the result of the amelioration of general climatic conditions, the glacier begins to retreat, the latter commences to form, steadily increasing in mass, height and width, until a wall or dam is built up across the valley, and a lake basin, or several of them come into existence.

Guyot also did much study of geography in America through the preparation of series of textbooks and wall maps, for which he obtained a medal of progress at the Vienna Exhibition of 1873. He contributed to the American Journal of Science, the reports of the American Association for the Advancement of Science and the Smithsonian Institution, published many books and periodicals.

Watt

The man who dreamed up a steam engine out of a teakettle!

JAMES WATT, who is often credited with the invention of the modern condensing steam-engine, was born at Greenock, Scotland, on January 19, 1736. Although the principles underlying the steam-engine's construction had been known for centuries before his time, and even before his birth engines of a sort were in operation in Cornwall, nevertheless the world is indebted to his genius and industry for vital improvements in their construction, without which the machine would never have amounted to much as a producer of power.

His early education was at the town schools which he was unable to attend regularly on account of bad health. At this time he was learning the use of wood and metal working tools and constructing ingenious models and original mechanisms. He liked mathematics and was fond of reading. When eighteen years old Watt went to Glasgow to learn the trade of an instrument maker, and soon after went to London. On his return to Scotland in 1756 he tried to establish himself as an instrument maker in Glasgow, but the city guilds would not recognize a craftsman who had not served the full term of apprenticeship, and Watt was forbidden to open a shop.

However the university employed him as an instrument maker, and Watt remained there until 1760, when he established himself independently, working also at times as a civil engineer.

As early as 1759 Watt turned his attention to the construction of a steam carriage and in 1764 he was called upon to repair the model of the Newcomen engine in the cabinet of the university. Studying this machine thoroughly, he soon realized its defects and lack of efficiency. His first improvement was to arrange for the condensation of the steam outside of the cylinder, and in a chamber where a vacuum could be maintained. This was followed in turn by the introduction of the steam on both sides of the piston, which permitted the cylinder to be placed in a horizontal position if desired; the use of the steam expansively, and the employment of the flywheel to convert reciprocating into rotary motion. Confronted with a patent on the connecting rod or crank, that had been granted to a former employee, Watt invented what became known as the "sun and planet gear" which answered well as a substitute.

The application of the centrifugal governor to the steam engine, the invention of the water gauge, the mercury steam gauge, and the indicator are but a few of the many improvements Watt contributed to the steam engine. The invention of the steam hammer naturally resulted from his work on the steam engine, but the copying press, a spiral oar or screw propeller, the discovery of the composition of water, a machine for reproducing sculpture, and numerous physical instruments and methods show the diversity of his researches and the breadth of his talents. So great was the confidence inspired by his mechanical ingenuity that he had no difficulty in securing the capital required to embark extensively in the manufacture of engines; and when he retired in 1800, he was able to turn over a remunerative business to his two sons.

In 1784, he was elected a member of the Royal Society of Edinburgh, and in the following year of the Royal Society of London. In 1806 the degree of LL.D. was conferred on him by the University of Glasgow, and two years later he was made a foreign associate member of the French Institute. He died at Heathfield, in Staffardshire, on August 25, 1819. A national memorial in his honor was placed in Westminster Abbey.

by
LEE
FRANCIS

For two thousand years no woman had lived on Earth. Then Jerry Rand found a Time capsule—and material for an experiment!

"LEFARR can blow his blasted brains out," Jerry Rand shouted above the steady roar of rocket exhaust. "That's the last space capsule. Its mystery will be solved in the next half hour or we'll be floating in space with our ship knocked out from under us."

He jammed all rocket release levers down hard and felt space ship X10 pound forward into the blackness of the moon pit, Cassini. Behind Rand, "Rad" Wallace, pudgy, grim-faced dual man held tightly to his controls. "Rad" Wallace's lips were moving, but not in prayer.

The approaching dreadnaught was clearly visible in the long range telaglass now. It came hurtling down the dark side of the pit, not five hundred miles behind the X10. Rand's ship was within diving distance of the space capsule. The capsule hung in the dark void beneath them like a slim metal pencil, leading them onward.

"LeFarr's got the atomic cannon trained on us," Rad Wallace said calmly. "He'll have our range soon, and then *blotto* for the X10."

Jerry Rand twisted in his seat, ap-

Her beauty captivated the world—and came near to wrecking it

praising eyes fixed on the tela-glass.

"We've got time to swing out the space net, scoop up the capsule and swing out of his range." His mouth set in savage white lines. "I'll give LeFarr a taste of his own medicine before we get out of this mess."

Rad Wallace leaped from his place at the controls and shouted down the corridor toward the main hatch. The X10 shuddered as the space net shaped like a hollowed, perforated sail fluttered out from the side of the speedy X10 and straightened in the wind. LeFarr was almost within range now, his great fighting ship whistling down toward the small X10 with terrific speed.

"We better get out of here before we get blown wide open," Wallace shouted. "That guy means business."

Jerry Rand watched the image of the pursuing dreadnaught g r o w large against the screen. His hands were steady on the controls. The X10 went into a twisting, howling spin and the ship lurched slightly as the space capsule hit the net and sank into its grasping folds. Rand straightened the ship out quickly. With a sigh of relief he saw that the capsule was safe and the crew already busy with the job of dragging the net in. He turned his full attention to LeFarr and the onrushing dreadnaught.

"We got it all right," Rad Wallace said. "Better dodge LeFarr if you can. We aren't strong enough to fight him."

Rand's face lighted in a slow grin. His hand came back slowly on the controls and the X10 turned about hard and climbed steadily toward the blue lip of the pit. Up—up the wall they twisted and climbed, and in the tela-glass LeFarr's dreadnaught was a huge black blot. They were under the belly of the big fighter.

"Give him a dose of fire," Rand ordered coolly. "It may teach him to keep his big blunderbus out of our territory."

Wallace leaped toward the controls of the small, rapid firing atomic guns. With a quick jerk, he sent five roaring shots of flame directly into the belly of the dreadnaught. Five separate mushrooms of red flame broke outward from the dark ship, lighting the velvety black pit.

"That'll keep them busy for a while," Wallace said grimly. "It'll take a few hours to get *that* fire under control."

Rand nodded. Through the rear sights he watched LeFarr's ship falter and come about. Men were dashing wildly out of the hatches, ready to fight the blaze. The X10 cleared the lip of Cassini and went diving into space toward earth.

"Take over," Rand commanded. "I'm going to find out if this capsule is *another* false alarm."

RAD WALLACE had never been prouder of his youthful chief. Jerry Rand was all that the tough old warrior was not. Rand, in Rad Wallace's opinion was the tallest, hardest fighting youngster in the Earth patrol. The boy had trained hard to come into the service with a clear head and the finest physique Wallace had ever looked upon. As they went aft together, the fat, lopsided old fighter had to puff and grunt to keep stride with the long-legged Rand.

This was their last chance, and if it failed, their last trip in each other's company. Four times they had fought and blasted their way into and out of every space trap in the universe. Four times they had found nothing. This, the last trip, would have to be successful.

"Five capsules," the manuscript had said, *"have been shot into space. Be-*

cause pirates will search for them, only one has been loaded. The odds are against its being found. In that capsule lies the future happiness of man. A fortune more precious than all else."

When they reached the forward cabin, Slingo, the pin-headed Martian deck hand had already drawn in the space net, and the capsule was on the floor at his feet. It was barely six feet in length and made of shining metal.

Slingo jumped up and down in his excitement. "I t'ink you got someting here, my Captain."

Under Rand's supervision, Slingo turned the screw cap loose and it rolled across the floor.

"He's cold like everything, Captain," Slingo protested. "And *heavy* too."

His eyes were shining with anticipation. Rand pushed him away gently and sank to his knees. Something in the capsule was hard and brittle against his fingers.

"Ice!" Rand's voice was bitter with disappointment. "Some fool has pawned *ice* upon us as a great treasure."

An oath escaped Wallace's thick lips. He dropped heavily to the floor at Rand's side. Rand started to pull the ice stick from the capsule and his breath caught suddenly in a horrified gasp.

"Good God," Wallace whispered," *A man!"*

"But *such* a man I have never see," Slingo protested. "It has long hair, my Captain, and a very weak face."

It was true. Jerry Rand had never seen a human creature like this. Its face was delicately molded with high cheek bones and flawless white skin. It was clad in a short, pale green garment. The creature was long and slim with small hands and legs that had never been made to carry it for any distance. Oddest of all were the twin mounds of flesh that appeared on either side of its deformed chest. They stood taut and uniform under the straining cloth.

CAREFULLY Rand dragged the ice block across the room and lifted it to the couch. His hands were dripping from the melting ice. The crew stood at a respectable distance, gazing with wonder at the strange thing they had discovered.

"Frozen in *ice,*" Rand said slowly. "It is like nothing I have ever seen."

"This must have been a strange world five thousand years ago," Wallace offered almost grimly, "to let such weaklings rise to power."

Water dripped away from the melting sheath and collected on the floor beneath the couch. There was only a thin casing of ice on the body now. Still they waited, not knowing what to do. Finally the last of the ice shell had melted. Color flowed into the face of the strange creature. The limbs turned a glowing pink and the queerly deformed chest started to rise and fall gently. *The creature's heart was beating.*

Lips that turned red, parted slightly and soft blue eyes opened wide. They stared as though fixed on the wall. Rad Wallace walked to the couch and pushed a searching finger curiously against the rounded chest.

"This is a queer man," he said softly. "His chest is soft and warm to the touch."

The contact was almost pleasant. He was about to repeat it when the figure on the couch sat upright suddenly, leaning on one slim elbow. There was no mistaking the utter horror in its wide eyes.

"Doctor Ames? Where is he?"

Wide eyes swept the room, search-

ing every face for some recognition. Then awareness of the tiny fighting cabin, the roughly clothed men seemed to penetrate the stranger's mind.

"Please! Someone call Doctor Ames. This isn't the hospital. Where am I? What has happened?"

Jerry Rand, standing there stiff and tall among his crew, realized for the first time how really precious his discovery was. Doctor Ames was the man who, five thousand years ago, had prepared the manuscript Rand held in his possession. The great Doctor Ames whom history had long listed as the outstanding man of his age, had duped this creature in some manner. The stranger on the couch wasn't aware of the immense length of time that had elapsed since it first had slept. Suddenly a wave of pity swept over the young captain of the X10. This stranger had awakened to a new, strange world. The very basics of life had changed since that long gone day this oddly-formed creature had entered the capsule. For five thousand years man had been created in test tubes. No woman had lived on Earth in all that time.

Jerry Rand was fully convinced that the space capsule, said to contain man's greatest treasure, had restored to the world something long forgotten. Here, breathing normally, and in full possession of her senses, *was Earth's only woman!*

RAND went toward her and in two strides reached her side. The girl came upright, her body taut and defiant. Rand went down on one knee.

"Please do not misunderstand," he begged. "We know nothing of you. My men are only curious to find what matter of human being they have discovered."

She sat very still, alert and waiting for him to go on. Rand marvelled at the smooth skin of her body. The way it seemed to radiate heat.

"I went to the hospital last night, and Doctor Ames was to remove my tonsils." Her voice was low with anger. "What do you expect me to do when I awaken in—in this den of yours? You'd better send this mob of thick skinned bums out of here before I tear out a few eyes."

"You've been away from the hospital for considerably more than a night," he said softly. "You must understand that we mean you no harm. Destiny has played a queer game with you."

The girl's blue eyes blazed as she sprang to her feet. The flimsy cloth that only partly covered her slim, dainty figure, seemed to retreat as she drew it closely about her.

"Don't get *me* wrong," she blazed. "I don't know how I got here and I don't give a care. I'm a lady and you'd better get me out of this stag party before I start screaming."

Rand backed away from her, wary at the sudden outbreak. Her words puzzled him and he feared she might attack in some strange manner.

"Stag? Party?"

"Wait a minute, fella." Her breasts rose and fell with anger, and she sank backward on the couch once more, her arms crossed to cover the smooth mounds of flesh. "This act doesn't register with me. Take me home before I pull a tiger act on that handsome face of yours. I go to sleep expecting to wake up with a sore throat and now I get myself into the kidnap racket. It doesn't scare me a bit."

Rand knew that in some manner he must make her understand what had happened. It was obvious that the ancient Doctor Ames had told his patient nothing of what was to happen to her. She had been led to believe that her

sleep would last a few hours. It had lasted centuries. Perhaps by ancient standards of beauty the child considered herself attractive. To Rand she seemed small and very much outmoded in his world of men. Earth scientists would want to question her and explore the manner in which she had been molded. He must be careful that no harm came to the girl.

"I'm sincere," he said. "I am your friend. Please believe me."

With a defiant toss of her head she sent long black curls flying over her shoulders. Shrugging, she placed a small hand on his brown arm.

"The big bad wolf won't *hurt* you, darling," she said. "Just go and see his *itchings*. No you don't, Santa Claus! I'm sitting right here until you promise to get me home, and I can swing a mean right if you get funny."

Rand was careful to stay where she could make no sudden attack upon him.

"I think," he said solemnly, "that some explanation is necessary."

"And *I* think you'd better get me out of this house of horrors and let me catch the next train for home. My dad's a cop and when he finds out what you've done! Oh boy!"

HE made no attempt to understand her strange jargon. He had to tell her what had happened and he knew she would suffer a terrible mental shock. Would she understand that by a simple experiment, she had been preserved through time until now she was but a museum piece—a creature to be studied coldly under the light of research?

"You must listen to me," Rand said suddenly. "After I've finished. . . ."

"You'll take me home?" She was eager, and perhaps a little frightened now.

"My name is Jerry Rand," he told her.

"And I'm Sheila Laughlin, daughter of a Chicago policeman and belonging to one of the best Irish families to see God's green earth. Now, that we've been introduced formally, let's talk turkey."

"Three years ago," Rand started, "I was sent into space in search of a strange treasure."

At the mention of *space*, Sheila Laughlin made an odd, dry sound in her throat and went suddenly pale. She nodded for him to go on.

"I had discovered an old manuscript in the vault of an ancient hospital. The man who wrote it, foresaw the disease that would drive all women from the earth."

He watched Sheila Laughlin's face closely and was surprised that her eyes never wavered from his.

"This man was named Doctor Ames. He prepared five space capsules. Four were empty but into the fifth he placed a girl and froze her body in *time-ice*. When the plague struck he planned to duplicate this feat many times. He was too late. By the end of his life, no woman remained alive on earth."

"Now tell me one about Buck Rogers," Sheila snapped. "He's my style."

Yet, she was interested now. She knew that there *had* been a Doctor Ames at city hospital. It all sounded possible.

"Buck Rogers?" He looked at her questioningly.

Sheila drew her knees up under her chin and clasped her fingers about them. She was very still watching Rand through half-closed lids.

"Go on," she begged softly. "I guess I'm in for it."

"There is little more to tell. I have

found the girl that Doctor Ames placed in the capsule. From now on she is the property of the High Council of Earth."

The girl's forehead was wrinkled with bewilderment. She stood up and went falteringly toward the row of quartz windows in the side of the cabin. Stopping at the nearest, she hesitated, her face pale, and looked out. Nothing but void was outside that window. Far ahead, rushing up to them, was the small, whirling globe of Earth. Away in all directions, the planets and smaller bodies of the universe followed their carefully plotted courses.

For a long time she stood there, and when she left the window her face showed acceptance of the blow that had struck her. There was no doubting now. No turning back. Her life had been stretched by time into a world of which she knew nothing. A world that was harsh and cruel and belonged to men. There was no place here for her. There was no place in time for her. She was one frail, frightened woman facing a world of men, alone.

SHE went straight to the tall young man who had been kind to her. She believed him now, and had trust in him. In his hands her future safety lay. She put a faltering hand on his arm and looked into his eyes.

"What year is this?" she asked abruptly.

"Five thousand years have passed since you were frozen and your heart stopped beating," he answered. "The year now is 6942.

She stood up slowly, hot blood rushing to her face.

"Then I *was* the-the rabbit in the hat," she said. "Out of fifty million femmes, it had to be *this* girl who was put on ice for *five thousand years.*"

The last words came from her lips reluctantly, as though the very sound of them left her stunned. Tears formed in her eyes.

"The boys will be biting their nails to see me, I suppose?" she said weakly.

Rand, coming from a race of men who knew nothing of woman's emotions, found himself strangely moved by her reaction.

"I know not the meaning of 'biting their nails,'" he admitted. "There will, of course, be certain repercussions."

Sheila Laughlin didn't smile. Her face was a mask of slowly dawning understanding.

"Yeah!" she murmured softly, "I should think there would be 'certain repercussions.'"

And then she slipped toward the floor. As his arms went around her, she felt a strange feeling of relaxation. This, she decided, was enough to make *any* decent girl faint.

JERRY RAND had been commissioned by the High Council to fly the space-ways in search of treasure. His finding of Sheila Laughlin had been a startling discovery. However, the discovery wasn't the type of information that should be made public until the High Council approved. Several hours out of East Station he called the crew together for a final meeting before they landed. Rad Wallace raised a thick arm for silence and Rand addressed his men.

"You have all witnessed the finding of a woman. You have been told of this discovery and its importance. No one can guess the effect her presence will have on earth. We haven't the authority to make her finding known until the High Council gives us a deci-

sion. No doubt they will consider her a rare example of life in the past and her history will fill a wide gap in our libraries. Until that time, I hold each of you responsible for her safety and ask that you forget that she is with us. I believe I can trust you all."

When the crew had returned to their tasks of landing the X10, Rand stood, alone and badly puzzled, in the forward cabin. There was, he knew, nothing different or sub-normal about men of his race. They had been developed and incubated in test tubes. They emerged to grow as healthy, thoughtful men of normal size. Men able to think and act perfectly.

He pondered over old history book facts, about men and women who had been different. Rand grinned a little and wondered if Sheila's coming to earth would be greeted with sly chuckles at her physical weakness. He wondered if men would place her apart as an example of the days when other men, too weak to stand by themselves, leaned against women to support certain weaknesses within themselves.

There lurked in Rand's mind the terrible thought that he might be forced to yield to her attractions. He had turned the word "*she*" over in his mind many times in the last few hours. It was dangerously pleasant on his tongue.

Rand didn't find the slim figure, red lips and softly rounded body disgusting to his eyes. Yet, there was still that strong feeling of disinterest toward her, bred from a life without her kind. A disinterest that made him angry at his weaker thoughts.

"Am I disturbing Super-man?"

Startled by the sudden voice from behind him, Rand twisted around. Sheila Laughlin leaned in the open door, her lightly clad body poised gracefully. A smile parted her moist lips and the teeth behind them were even and pearly white.

"I-I did not hear," he stammered. "I hope you are comfortable?"

She had succeeded in smoothing the wrinkles from her short skirt and the dark hair was combed out fine and shining on smooth shoulders. Rand wondered at the delicate flesh of her body. He had never seen anything like this in his world of brawny men.

"I'm a darn long way from being comfortable," she protested. "How would *you* feel if you were dropped into a world of *women?*"

Though the question was vague to him, he was aware of what she implied.

IN Sheila Laughlin's mind there was a plan. It was rather vague and she knew she faced tremendous odds. In the short time she had been aboard the X10, Sheila realized this man, Rand, was the only one she could cling to for safety.

The men about her stared as though she were some rare museum piece. An odd animal to be studied coolly and dissected either by the eye or knife for research purposes. Rand's mention of the High Council and its *ownership* of her had disturbed Sheila more and more during those few hours since she had awakened on the couch with Rand staring down at her. She realized that the High Council, made up of men who had never seen or dreamed of a woman, would be heartless in its use of her.

If she could manage to awaken some interest in Rand, perhaps he would protect her. Otherwise, her fate would be the fate of a strange butterfly caught in the net of some long-bearded scientist.

She watched Rand closely, wondering what effect she would have on him.

Wondering if in his heart there lay buried some long lost attraction to the feminine sex. As much as she hated to throw herself at him, Sheila knew she must do so.

For the first time in his life, Jerry Rand blushed.

"We will dock at East Station shortly," he said. "You will remain on the X10 until arrangements are made."

Sheila's face clouded.

"I understand I'm to be a sort of prisoner of war until the High Council decides whether I'll look better pressed between book ends or stuffed."

Jerry was uncomfortable.

"I'm sorry you feel that way," he said stiffly. "Men of our time know little of women. I do not want them to laugh at you."

"They won't laugh," she said coolly and he saw fury in her eyes again. *"I'll* see to that."

"Please!" More and more he was aware of the strange warmth that her presence made inside his body. The comfortable feeling of her nearness. "There are certain differences about your life—your body. Our men of science will want to study you."

Sheila was still angry.

"I don't let any old billy goats paw me over," she said. "I'll answer anything they ask me if they keep the party clean. After that, *hands off.* I'm Mama's girl."

Rand didn't understand her. All he knew was that her eyes were twinkling. He smiled back, hoping she wouldn't act that way again.

"How about *you,* Jerry?" she asked suddenly. "Did you come from a test tube?"

He nodded.

"How else?"

She walked to his side, her hips swinging gracefully, hair floating behind her smooth neck.

"It-it sounds impossible. Haven't you ever been *kissed?"*

RAND tried to back away and felt the wall behind him. She stood close now, one of her hands resting on his shoulder.

"I have read that in the past, certain liberties were taken between sexes," he said faintly. "Of course to us, these things are but foolish fancies of an ancient life."

Oddly enough, he didn't even believe his own words. He wished that he could call for Rad Wallace, and then felt foolish to have given the idea a thought. She stood near him, a broad grin on her saucy face.

"Perhaps," she said, "it's the five thousand years I've spent in the ice box —and perhaps it's just that you're a darn nice looking boy. Jerry, I think *I'll* kiss you."

Her arms crept around his neck and her fingers traced little lines on his cheek. He stood stiff and terrified. Then her warmth aroused things within him that had been long dormant. His arms swept around her waist and pressed the breath from her. Her lips, parted slightly, were against his own.

When he released her, Sheila Laughlin stood very still, arms limp at her side. There was something in her eyes that reminded him of the stars on a velvety black night.

"Man kisses woman after five thousand years," her voice came to him detached and far away. "By the ghost of Saint Patrick, Man hasn't forgotten a thing."

Even then, tasting his lips and feeling his strong young body close to her, Sheila could not be sure. She had aroused within him something alien to his way of life. Yet, watching him as he waited for her to leave, she knew she had lost. Knew she had failed to

take his mind from the single track of duty it had been trained to follow. Nothing on earth would keep Jerry Rand from turning her over to the mercy of the High Council once they landed on earth. She knew this, and as she turned and left the room, there was a dull, hopeless ache in her heart that made Sheila feel even more alone in a vast world of men. She must plan her campaign accordingly; and slowly there arose in her the idea that there must be some way to arouse men once more. To make them realize the priceless, age old heritage of woman and the things they could give. Once outside the control room, Sheila Laughlin's chin lifted and her eyes grew cool and determined. *There would be a way.*

"LOOK," Rad Wallace said. "If that ain't Harrison LeFarr's space dreadnaught at the far end of the space-port, I'm a Martian potato bug."

They stood together in the control cabin, Jerry Rand piloting the X10 skillfully toward its space dock while Sheila Laughlin and Wallace watched at his elbows.

Rand studied the sleek hull of LeFarr's ship. When he turned, his face was grim.

"It's LeFarr all right," he said. "He's been here long enough to have every space cop on the force waiting for us to land. There isn't a man in East Station who will believe that we attacked LeFarr's ship in self-defense."

Sheila Laughlin watched them questioningly, first the fat, stocky Wallace, and then the slim, hard mouthed Rand whom she had learned to care for so soon.

"LeFarr has complete control here," Wallace said, understanding how little she had been told. "He is the greatest scientist on earth. His laboratories turn out the population of the earth. His word is tops with the High Council!"

"But if he was also looking for me," Sheila protested, "tell him that I am safe with you. That should settle the matter."

"It won't," Rand said shortly. "He wants the credit for discovering you. I had special permission from the High Council to search for the missing treasure and I'm going to collect my own reward."

"But what are we to do?" Wallace demanded. "LeFarr will board the ship and demand that we turn over our treasure. When he sees the girl, he'll go wild. What could please him more than to show *her* to the High Council and demand his due reward?"

"I have a plan," Rand said coolly. "Slingo is waiting in the hold of the X10. As soon as we dock, Sheila will join him there. Tonight when the ship is deserted, Slingo will take her to my apartment and she will be safe from LeFarr."

"And if I don't choose to be pushed around like a pet mummy?" Sheila asked. "What then?"

Rand whirled about, his features drawn and determined.

"It will be well to understand," he said, "that you have been found by my expedition and that you are my property. At the meeting of the Council of March, which is scheduled for the coming fifth day, Slingo will bring you to me as I stand before the High Council. Once in their protection you will be safe from LeFarr. The fame of your discovery will be in my hands and the Council will do with you what will be of most benefit to our society."

Sheila Laughlin was s u d d e n l y speechless with rage. She stood alone, staring away from them, down at the

strange space-field that seemed to rush up to them with impossible speed.

It was truly a strange world she had awakened in. A world far advanced mechanically, inhabited by men who held no love or pity in their souls. It would be useless to argue now. Later perhaps, a plan would present itself and if it did, she would be ready.

THE X10 slipped into dock silently, bounced back against powerful shock cushions and the motors went dead. At once the landing platform was covered with waiting space officers. The outer door of the dock swung open and Harrison LeFarr ran across the platform, several uniformed men at his heels. They watched him through the heavy quartz windows as he reached the lower level of the X10 and entered.

"This is it," Wallace groaned. "We'll lose the girl, *and* our necks. LeFarr is after his pound of flesh this time, after what we did to his ship and his pride."

There were hurried voices in the corridors below and footsteps sounded on the steps.

"Quick!" Rand grasped Sheila Laughlin's arm and drew her hurriedly away from the control board. He pushed a small door in the wall to one side. "Through this and into the ship's hold. Slingo the Martian will see that you are safe."

He pushed her through the opening almost roughly. Below pitch dark steps, Sheila heard Slingo's voice coming up to her in a harsh whisper.

"Stay close to the wall, my Lady. That Captain one smart fella. Slingo will see you don't get hurt."

In the control room Rand and Rad Wallace waited.

LeFarr entered first. The three men with him were dressed in stiff blue space patrol uniforms. LeFarr stopped short, looking about in amazement. It was evident that he had expected to find some rare treasure here.

Harrison LeFarr was a slim, stoop shouldered man with graying hair and bushy eyebrows that jumped up and down as the muscles of his face quivered with anger. His eyes, black as night, darted searchingly around the room and rested finally on Jerry Rand.

"Where is it?" His voice cracked like a whip as he panted with the exertion he had undergone. "Where is the treasure that you took from the capsule?"

Rand curbed an impulse to smash his fist into the man's hateful face. He stood with hands clenched at his side, judging each word as it fell from his tight lips.

"There is no treasure," he said. "The fifth capsule was empty like the others."

Rad Wallace chuckled audibly.

LeFarr was raging. His jaw muscles worked convulsively.

"I saw you take that capsule on board," he roared. "You would not have returned so soon if it had held nothing. I demand, as a member of the High Council, to see what you have brought back."

Evidently the officers who were with him, had grown nervous with their assignment.

"Perhaps," one suggesetd, "the Councilor was mistaken?"

LeFarr twisted about like a crazy man. He started to shout again, then caught himself. Words came from his lips smoothly, with the quiet precision of a machine.

"Perhaps," he admitted, "I am wrong. But I was *not* mistaken when I accused this young fool of attacking my ship and attempting to destroy me. For the time being I demand that

he be held in prison at Captolia.* Later I will see that he is brought before the High Council and properly punished for his deeds."

"Take it easy," Rand cautioned. "I have a full crew of men who will swear that I fought you in self defense. Men are still free in this country. When I am proven not guilty, you will be the one to suffer."

LeFarr seemed about to explode with his own importance. Turning toward the still hesitant officers, he shouted:

"Did you hear me? Am I not one of the members of the Council? *My word is law.*"

The men circled about Rand.

"We hate to do this," one of them said. "We have no choice."

Rand turned quietly to Rad Wallace.

"Take it easy Rad," he cautioned. "We'll have our round later. This is LeFarr's turn to be tough, so let's go quietly."

They were led from the cabin to the sun-splashed field. Official cars waited to take them away. Somewhere in the X10, Slingo and Sheila Laughlin crouched in the darkness, waiting for the safety of night in which to leave the field and hide where Harrison LeFarr couldn't find them.

THE Chamber of the High Council was a seething mass of men. This was the Council of March and today all the important cases of the year would come before the aged brain trust that ruled Earth. The chamber itself was nearly a mile in length. Great radio-screens carried the slightest whisper booming to every corner.

Press and radio-screen men had been pouing in since early morning. The case of Rand vs. Councilor LeFarr had received wide flung publicity. Although no question of its outcome had been raised, the affair held a certain importance.

The story of Sheila Laughlin had been carefully suppressed. Still, rumor had whispered that something strange and wonderful was in the air. Press and radio-screen outfits could ill afford the chance of missing a story that might eclipse all history.

At one o'clock the High Council filed in and took their places on the rostrum. There were twenty men, gowned in dull gray robes and long-curled wigs. Harrison LeFarr took his place among them and his appearance sent a stir of excitement through the audience.

The High Judge, old and wise, his face stiff with wrinkles, arose and tapped lightly on the sound board. The radio-screen sent the crash of his blow across the chamber and the silence that followed was complete.

The High Judge waited, a minute passed, then his voice came breaking across the room through the speakers.

"We are about to hear the stories of two men who say they have been wronged. We who sit here must judge carefully if there is to be proper punishment. We ask that you refrain from expressing yourselves in any manner until this council is closed."

In the press box under the rostrum reporters moved about quietly. The chamber was hushed in expectation. Jerry Rand came through the low door from the cell room, followed by the shambling hulk of Rad Wallace. They sat down on the level below the High Council.

Harrison LeFarr arose and without hesitation stated his case.

"My ship and my men were attacked in the moon pit, Cassini, while searching for valuable treasure," he said

* Captolia—Earth's only prison. An escape-proof building close to the Council Chamber, maintained especially for political prisoners.

calmly. "This man Citizen Rand turned his guns on us without hesitation, destroying our cargo and in the battle that followed he attempted to murder us all. *No answer that he may give will justify that attack.*"

At once the press section was alive with action. Radio-screen projectors carried LeFarr's accusation to a waiting world. LeFarr, men knew at once, was so sure that he would win over Rand, that he had taken no trouble to prepare his case.

Jerry Rand sat quietly, his chair drawn close to Wallace. The black prison suit of Captolia covered his body. He stared at the floor, seemingly disinterested in what was happening.

The High Judge arose once more, mopped his face with a clean handkerchief and looked about him at the vast audience.

"We have heard Harrison LeFarr's story," he said. "It is well known that his work is almost beyond estimate in its importance to us all. The word of such a man cannot be lightly tossed aside."

THE old man turned gently toward Rand.

"Stand up, Citizen Rand, and tell us why you committed this seemingly insane act. If there be justification, we would know of it."

Rand shot a quick glance at Wallace and the old warrior grinned.

"Give 'em hell," he said quickly, "I'm with you all the way."

Rand went to his feet stiffly and walked before the High Judge. As he turned toward the chamber his knees shook under him. A body that functioned perfectly behind the guns felt awkward and out of place here.

"You have heard the truth," he said in a low voice. "We did attack the dreadnaught of LeFarr—in self defense. More than that, I would do the same again if it were necessary."

He tried to go on talking and found himself suddenly drowned out by the deafening shout of anger that went up from the crowd. Men were on their feet protesting. The radio-screen projector, trained on his face, was white and hot with scrutinizing light. The chamber was in an uproar. The High Judge sprang to his feet and clapped his hand down hard against the sound board. Repeatedly he pounded for silence and gradually the tumult died. Men continued to watch Jerry Rand with murder in their eyes.

"Attention!" The High Judge had restored order. "We admit this man's own testimony is damning to himself. This council will hear him finish."

He turned to Rand, waiting for him to go on.

"LeFarr has done wonderful work among us," Jerry Rand admitted. "He is known for his improvements on our men and our land. I myself, came to earth under his skilled fingers. Yet, not six weeks ago this Council sent me in search of a great treasure. You men supplied money for my needs, that I might prove that such a treasure existed."

"And did you bring back our money?" a voice taunted from the gallery.

Rand looked upward, his shoulders erect and proud.

"I brought more," he answered. "I was within grasping distance of that treasure when LeFarr's ship attacked the X10. I tell you I am as shocked as you are that such a man should stoop to such an act."

LeFarr sprang to his feet and in a voice taut with rage, shouted to the chamber.

"Don't believe this young fool. I tell you he turned and sent his guns

firing into my dreadnaught."

The High Judge raised his hand.

"Let Rand finish," he ordered. "There is yet time for you."

LeFarr sank back, hands clutching the arms of his chair. Blue veins stood out against his forhead.

"If I am to be judged," Rand said coolly, "I should be judged as a man on equal terms with Harrison LeFarr. His position does not make him immune. *We men are equal.*"

A faint cheer came from the rear of the chamber and died abruptly.

"I know not why he sent his ship against mine, unless he wished personal glory. I fought to the best of my ability to outwit a pirate craft. I would do as much again."

THE High Council was puzzled by this man who dared be frank about his act. Men in the chamber sympathized now with Jerry Rand. They liked the clear ring of his voice and the way he reminded them of freedom.

LeFarr was ready for a reply. He crossed the gallery and stood before Rand. When he spoke it was with the gentle cunning of an animal who had trapped his adversary.

"We have heard great words from this criminal who seeks to cover his crime with talk of freedom. I am sorry that I was on the ship that, as he so disarmingly puts it, deliberately attacked him. Ask him where the treasure is that he brought from the moon pit, Cassini. I too was in search of it, and perhaps if he had not sent his cannons against me, this chamber could gaze upon the contents of the space capsule."

He returned to his chair with the High Council and sat down contentedly. The place was loud now with whispering. Men turned in their seats as though seeking an answer to his challenge. The High Council awaited Rand's reply.

"We've got him by the scruff of the neck," Rad Wallace whispered. "He thinks we failed. Slingo has done his job well."

Rand nodded slightly and went to his place before the Council. The audience was waiting. Waiting for something; they weren't sure what. Every radio-screen projector was on his face.

"I was sent on a mission," Jerry Rand said simply. "I did not fail in my duty to you."

LeFarr came forward in his seat, lips straight and white. He was silent, waiting.

"I brought a woman to earth," Rand said and the chamber was a vast electrified box of tension. "I felt that this *woman* would face certain death in the hands of those who would take her body apart for science. With the permission and the protection of the High Council I am ready to present the first woman who has seen this earth in five thousand years. A girl who is fresh and filled with the bloom of youth. She has been asleep through the ages in the space capsule of ice."

He turned toward the High Judge. That gentleman, obviously overwrought by the announcement, jerked his head in quick permission. Rand turned his gaze on the door to the outer hall, saw Slingo there in the shadow gesturing excitedly and motioned him with his hand. Nothing happened. He had expected Sheila Laughlin to come through that door. Expected to show his people the treasure he had brought for them.

Slingo the Martian stood at the door, waving his arms excitedly. The chamber was silent, waiting for the impossible. Rand started toward the door, then stopped in bewilderment. Behind him, LeFarr started to chuckle.

RAND thought he heard in that laugh, the reason for Sheila Laughlin's failure to appear. Slingo, his pin head bobbing in excitement, dashed across the rostrum to Rand's side. His eyes were wide with fear and his lips moved rapidly before he managed to find his voice.

"The girl," he cried in horror. *"She is gone, my Captain."*

The color drained from Rand's face. He grasped the little Martian's shoulders, holding him at arm's length.

"What?" His heart was sick and angry. "But you were to see that she came here today."

Slingo's head dipped foreward in humiliation.

"I am truly sorry, my Captain," he muttered humbly. "The girl and I go to your apartment like you say. She seem very happy there and I do not have to watch her close. Then, today when we are to come here, she is gone. I look everywhere and I cannot find. At last I can look no longer, and I must come and tell you."

Rand released the little fellow, realizing his last card had turned out to be a deuce. There were no words, now, that would clear him from LeFarr's trumped-up charged. He was at the mercy of the High Council.

He turned slowly, and caught the quick look of triumph in LeFarr's eyes. The challenge was too much. With one long bound he was at LeFarr's side, arm upraised.

"You filthy . . .!"

A heavy fist crashed into his face and he went to one knee, burning pain rushing through his brain. He realized that to insult a member of the Council without first proving that member worthy of an insult, was unforgivable. The officer of the chamber stood over him, rubbing a hairy fist.

"Sorry!" he said. "I had to do it."

Rand came to his feet unsteadily, shaking his head to rid it of pain. LeFarr had been waiting his chance.

"This man has proven his own guilt," he said, turning to the High Judge. "He has failed to produce the girl. I could have brought her with me, had it not been for him. I demand that he be sentenced to Captolia for his crime."

"What can you say for yourself, Citizen Rand?" The High Judge's voice was cold and even.

Rand was silent. Without Sheila, his story was impossible. It was useless to fight now. He stood with bowed head, awaiting sentence.

The High Judge sank slowly into his chair.

"This Council has no choice," he said. "You are sentenced to ten years in Captolia. Your crime has been serious but fortunately no great harm has been done. Perhaps you will come to us again with a full understanding of what you have done, and be a better man for your years without freedom. That is all."

Dully, Jerry Rand was aware of the arms that went around him as he stumbled away from the chamber. Voices of condemnation crashed into his brain and the face of Councilor LeFarr leered into his. Slowly he went with the officers of the court and they took him into the dark tunnel that led across the court and into Earth's prison, Captolia.

IT WAS on the fifth day after Jerry Rand had entered the underground prison that he first heard from the outside world. At noon each day, he mingled with the other prisoners in the lighted lobby of Captolia. From them he learned of Sheila Laughlin and the course she had chosen to pursue.

At first he could not believe that the

Irish girl had turned upon him. Yet, from the guard that walked by his cell each hour, Rand managed to get the whole story.

"This woman you talked of," the guard said. *"She is real! She is on earth!"*

Rand stood close to the bars, watching the dark, eager face of the man in uniform as he waited there, watching the reactions that crossed his prisoner's face.

"You're mad," Rand said but his heart was pounding inside him and for the first time Captolia seemed brighter and less frightening. "She would not dare let her presence be known."

"But she has," the guard insisted. "She is even now in the apartment of the High Judge and you are a free man. The High Judge is away, attending to that miserable rebellion business in the east. When he returns, his power will set you free. You will be acclaimed for what you have done. Councilor LeFarr has already approached the High Council for permission to remove from the girl's body certain atomic particles that he can use in his laboratory. The entire thing is a vast success."

"But I should be set free at once," Rand insisted. "The girl proves that my story is true."

The guard looked unhappy.

"You should be set free and acclaimed as a member in good standing of the High Council," he agreed. "Unfortunately no man has power to do this but the High Judge. He will return in five days, and then. . . ."

That was all. Nothing Rand could say would set him free until the great sage returned. He knew this, and was silent. His mind asked innumerable questions about the girl. Questions that were answered slowly as he listened to the men about him.

THAT first day Rand learned little. But he knew now that Sheila was alive, and strangely enough in the custody of the High Judge himself. From then on, Rand waited to be freed. Two days passed, then three, and again the guard stopped at his cell, and standing close to the bars said:

"Come here. I have something to show you."

"Show me the key to this filthy den," Rand said savagely. "That is news I could relish."

Still he listened and learned of Sheila's coming to the high council. How she had appeared and been welcomed. She wasn't the Sheila Laughlin he had known. The picture he had procured from the guard convinced him of that.

"This girl is re-awakening the world of men," the informer said. "She has talked and sung and laughed her way into the hearts of us all. Her pictures have been thrown by radio-screen and paper into every corner of the world." Then in an awed voice, *"She may become our queen and her power will be over us all."*

When he had gone, Rand studied the picture he had tucked beneath the cloak of Captolia. It was Sheila, her body thrown carelessly across a couch of gold. Her breasts and hips were covered with tight cloth and her smile beckoned in a way that told him she was driving men wild with newly awakened desires. Rand tried to understand her deserting him when he needed her most. He tried to justify this seduction of an entire world and somehow his heart was only made heavier and sadder with the attempt. Sheila Laughlin was lost to him forever, and even her own soul was lost. She, a single vibrant woman, had lost her body to a world that belonged entirely to men.

DURING the exercise hour, standing alone by the lobby wall, Rand was suddenly startled by a familiar voice close to his elbow. He pivoted about, facing the ruddy-faced Rad Wallace.

"Rad!" He felt suddenly alive. "How in thunder . . .?"

Wallace pushed him out of sight around a corner of the wall. Half crazy to know what was happening outside, Rand could hardly control himself.

"Jerry, I've got to talk fast," Wallace said. "I'll have to be out of here when you return to your cell. If I'm caught inside . . ."

Rand nodded.

"Go on," he urged. "Sheila? What has happened . . .?"

"Never mind about *her*," Wallace scowled. "Listen, LeFarr has arranged for your escape. He let me in here through the private tunnel. Only members of the High Council have keys."

"LeFarr?" Rand was bewildered.

"Right. Don't ask me why. He wants to get you out. He wants you to be ready in your cell at midnight. The guard will release you. You are to follow him and ask no questions."

"But LeFarr," Rand protested. "He's no friend of ours. There must be something wrong."

"You're darn right there is," Wallace agreed feverishly. "And he'll probably take the first chance he has to murder you. It's the only way out, and I'll be around when trouble pops."

"But why is he doing this?" Rand asked. "He's safe as long as I'm here. There is no advantage for him to free me."

Wallace's face was set in grim, hard lines.

"The High Judge will return soon, and his return will free you," he said. "But LeFarr needs you tonight. If you fail to do as he says, he may bring up the charge of you attacking his ship and have you thrown back in here. Once you are outside and the High Judge is here, you will be safe. If you follow LeFarr's instruction, we may be able to pin some charge on him. I have a feeling that he wants you to influence Sheila in some way, so that she will submit to his knife before the High Judge returns. If he does, we'll stall and find out just what he's after."

"Where is Sheila now?" Rand asked. "I've heard of what she has done."

"At the Sky Apartment," Wallace answered. "She's taken over the living quarters of the High Judge. Her word is the world's command to jump through a hoop. She has some plan but I can't figure it out."

"But I don't see what I can do," Rand said. "She failed me before the council. She has no feeling for me other than that which will better her position here."

"I'm not so sure," Wallace answered slowly. "I can't figure the girl out. The question is, will you escape or not?"

Rand felt suddenly disgusted with the part he had played in Sheila Laughlin's life. She had pretended affection for him. Had led him to believe. . . .

"LeFarr has the key to some puzzle," Wallace was saying. "I think we can outwit him, once you are outside."

Somewhere on the far side of the lobby the cell warning bell crashed. Wallace grasped his hand firmly.

"I've got to get out of here fast," the old warrior said. "Tonight at twelve?"

"I'll be ready," Rand said mechanically.

He turned away and walked slowly toward the line of men who were returning to their cells.

AT eleven thirty the long cell block was dark and silent. The moon crept through slitted windows, lighting Rand's cell with long figures of silver. For minutes he sat at the edge of the cot, wondering what he should do when the time came to meet Sheila.

Try as he might, Rand couldn't figure out why LeFarr needed him. If Sheila Laughlin was in the Sky Apartment, why didn't LeFarr go to her and ask permission to proceed with his work? For a while Rand toyed with the idea that Sheila was using LeFarr to free him from Captolia. Then he realized that had it not been for Sheila, he would never have been here in the first place. No! Sheila Laughlin had a deeper plan. He gave up, shrugging his shoulders, and waited.

A stealthy movement came from the corridor outside. Rand stood up, waiting, hardly daring to breathe. A voice, hushed and guarded, came through the heavy door.

"Prisoner Rand?"

"Right!" Rand answered in a harsh whisper.

A key grated against steel and the door swung open. Rand could see the hunched, uniformed figure waiting just outside.

"Follow me!"

The guard's voice was low and gruff. They went silently along the black hall and into the main lobby. At the steps that led to the tunnel, the guard halted, putting a restraining hand on Rand's shoulder.

"The guard will pass in a minute."

He was familiar with every move that took place within the prison.

They crouched against the wall as footsteps approached. A dark shadow went by them, in the direction of the main gate.

"Now!"

He followed hurriedly and in a minute they were swallowed into the tunnel that led to the main chamber of the Council. Then Rand heard voices ahead of him and a torch flared up against the tunnel wall. Harrison LeFarr's voice spoke to him from beyond the glare of light, warm and friendly.

"Glad you made it, Rand," LeFarr said, and then to the guard who had helped Rand escape, "Back to your post. When they discover his escape, turn the case over to me. I'll protect you."

There was a hurried exchange of tinkling coins and the guard went back from whence he had come.

"Come quickly," LeFarr said. "The girl is in the Sky Apartment. We are to go there at once."

Warily Rand followed. They reached the door to the main chamber. It was deserted. Yet Rand felt sure that Rad Wallace was somewhere about. Almost across the great, empty hall Rand froze with a startled cry in his ears. It was Rad Wallace's voice hurtling down to him from the balcony.

"Duck, Jerry! They're on your neck!"

HE had been waiting for something like this. When action came, Rand was ready. From the corner of his eye he saw three men swing away from the balcony on long ropes that were tied somewhere above. They came plummeting down toward him. At the same time, LeFarr pivoted, ray gun thrust forward. His face was black with hate.

Rand bent over suddenly and with all his strength sprang forward, tackling LeFarr at the waist. He was aware of the sudden sputter of a ray gun, a scream of pain as one of the men on the ropes fell headlong into the

chairs behind him. The body was burned and broken as it hit.

As LeFarr went down with a loud grunt under Rand's onslaught, Rad Wallace grabbed the empty rope and slid down quickly. LeFarr's other men were on their feet, coming on the dead run.

LeFarr twisted and fought back savagely, trying to break Rand's hold on his waist. The ray gun had twisted and fallen from his limp fingers. Rand came from his knees with clenched fists. With unholy fury he sent a crashing blow into LeFarr's face. His hand ripped into soft flesh and came away red with blood. LeFarr fell backward with a groan, his cheek open and bleeding.

Twisting around, Rand found a ray gun full in his face. Wallace was busy with the third man who had swung from the rope.

Rand raised his arms slowly, waiting for a chance to break forward.

"I think we have had enough of this comedy of errors!"

The booming voice of the High Judge came from the empty rostrum. Wallace dropped the man in his heavy grasp and stood painfully erect. The gunman who covered Rand, dropped his weapon hurriedly, a look of fear crossing his face. They turned as one man, toward the dignified figure above them.

"It is well that I happened to return," the High Judge said quietly.

He held no weapon, yet his position was more deadly than a show of arms. No man dared question his rank. Now others, aroused by the shot, came from the rooms about the main chamber. Guards appeared from the tunnel and stood about the room, weapons drawn.

"I'm sorry," Rand said, but the High Judge held up a warning hand.

"We will adjourn to the Sky Apartment," he said. "What I have to say concerns only Councilor LeFarr, your man and yourself."

His voice was stern and yet the twinkle in his eye betrayed something in the favor of Jerry Rand.

"As you wish!" It was LeFarr, on his feet, face bleeding freely from Rand's blow. "We attempted to stop the escape of this prisoner. You arrived to assist us in the effort."

Was he mistaken, or did Rand see that twinkle again, hidden under the gray pouches that all but obscured the High Judge's deep set eyes?

They followed him toward the ela-flyer that shot skyward into the tower of the council building.

Rad Wallace had been right. Sheila Laughlin had changed the apartment and herself since they had last met on the X10. The Sky Apartment had always been a great, simply decorated place.

Now, as they entered, Rand saw the change that had taken place and it took his breath away. Sheila had left her mark on everything. This, then, was the home of the World Queen.

The ten great rooms had felt the touch of her hands and the color of her personality. They were furnished with rare fabrics and deep, comfotable furniture. Soft, translucent curtains covered every window with pastel blues. Deep blue rugs and gold furniture changed the sky apartment to a vast feminine dream world. This, then, was the world of Sheila Laughlin. She had brought around her a setting to enhance her beauty and add to her own power.

"You are startled by the changes here," the High Judge smiled. "In a moment you will be even more surprised."

He clapped his old hands together and a servant appeared at his side.

"If the Earth girl will come now?" It was a half question.

THE servant bowed and went away through the drapes before one of the curved doors. LeFarr sat down, wiping blood from his face. Rand remained on his feet, hating what he was about to witness. He heard Rad Wallace gasp with wonder and turned as Sheila Laughlin came toward them. She had applied coloring to her cheeks and face, as he had never seen before. Her body, slim and vibrant, was clad in silvery cloth that swept to her sandaled feet. At ever step, her hips swayed and glittered under the silver stuff. Sheila's hair was combed out black and long with a great rose worn at the crown.

"You asked me to come?" She went toward the High Judge, seemingly ignoring the others, and sat on the arm of his chair.

The High Judge coughed and a smile of delight parted his thin lips.

"I *hoped* you would come," he corrected gently. "We have a problem that must be discussed soon."

It was obvious to Rand that the girl held them all with her spell. Through her whims she had gained a place over the entire Council. He shuddered at the thought that she had tried to sway him in the same manner, only to turn against him when he needed her so badly.

Sheila turned slowly, deliberately, until their eyes met. She slipped from the chair and walked toward him, her eyes warm and perhaps slightly mocking. With a tiny hand on his shoulder she looked up into his face.

"It's Captain Rand," in mock surprise. "Where *have* you been?"

He drew away from her touch, feeling much like a small boy. She could have saved him from Captolia had she wished to do so.

"There must be *two* women on earth," Rand turned away from her and spoke deliberately to Rad Wallace. "*This* is not the woman who professed to enjoy my company."

"Don't be a fool," LeFarr shot at him, "The female creature is of many moods. We humor them all. Now it is necessary that we all work for a common good. Bury your petty differences and proceed with the discussion."

His words sent a shiver of fear through the girl. She seemed suddenly small and afraid against the background of the bigger things about her. She went close to the High Judge, seeking his protection.

The old man placed a fatherly arm around her waist.

"I think," he said slowly, "That a few explanations are necessary. I am ready to sit in judgment when they have been given."

"Wait a minute," Rad Wallace begged. "I'm just an onlooker here, but what's all the mystery?"

"There is no mystery," the High Judge said. "We are working at cross purposes. Harrison LeFarr wished to perform a delicate operation on this girl's body. We have been unable to convince her that it is necessary if she is to live here with us. The world has looked upon her and finds her pleasant, even necessary for its continued existence. For some reason best known to herself, the female has insisted upon first seeing Citizen Rand.

"Councilor LeFarr took the liberty of releasing Rand personally. His right to do so will be questioned in due time. For the present, the fact that Rand is here will suffice."

"I'll have no part in this business," Rand protested. "LeFarr released me only to kill me. The girl has shown *her* interest by letting me be thrown

into Captolia when her appearance was enough to save me."

"You're a fool," LeFarr snapped. "You attempted to escape. Only my presence . . ."

RAD WALLACE's face grew an angry red.

"I can blow *that* story wide open," he growled. "I paid your guard to turn evidence against you. You're in as deep as we are, LeFarr."

The High Judge had listened patiently. Now he raised a thin hand for silence.

"There is no need for this discussion of right and wrong," he said slowly. "Rand has proven that his story of the girl was the truth. He is here tonight and I was about to release him had Councilor LeFarr not been kind enough to do so himself. He will henceforth be a member of the Council for his great discovery and will be treated on the same level as Councilor LeFarr. All other charges against him are dropped."

He hesitated, and then, pointing a kindly accusing finger at Rand, went on.

"I'm willing to play the game, but not for keeps."

"We will leave you alone with the girl. She will tell you things that I'm sure will change the entire situation."

Puzzled, and still hating Sheila for the things she had resorted to, Rand found himself alone with the girl. To his surprise, as the others left the room, her haughty pose vanished. She came to him suddenly and, putting her arms around his neck, started to cry softly. Her cheek against his, the warmth of her smoothly clad body brought back old thrills of desire.

"I'm—I'm frightened!" she sobbed.

"I—I don't understand. . . ."

"Oh! Golly, honey. I didn't turn *rat* on you. Slingo asked me to stay away from you the day of the Council meeting."

Rand stiffened.

"Slingo wouldn't do that," he said. "You were my only witness. You were the one thing that would convince them that I was justified in attacking LeFarr's dreadnaught."

"LeFarr!" She released her hold upon him and stepped back, eyes blazing. "LeFarr is the one reason I couldn't come. Jerry, can't you understand? LeFarr wants to take from me the necessary glands to manufacture women in his laboratories. If I had come then, he would have claimed me as public property and murdered me in cold blood. I had to wait."

She sat down abruptly on the long couch of gold. Her head bowed and her shoulders, bared by the light gown she wore, were bent forward in grief.

"Jerry, darling, I'm willing to play the game but not for keeps. *LeFarr intends to kill me and I'm afraid to die.*"

HER fear and her appeal to him, left a strange feeling in Rand's heart. If it were necessary for her to die, that Earth's population could once more be supplied with women, then it was her duty to submit to LeFarr's knife. On the other hand, LeFarr had no reason to care about her destiny. Rand knew that LeFarr's partner, Rod Hamilton, had been constantly with LeFarr since they had joined forces years before. Hamilton claimed that death was never necessary when any animal went under the knife.

"I hadn't realized that LeFarr intended to sacrifice you." His voice was strangely harsh. "As a member of the Council, I could insist that he turn the actual operation over to another, equally competent man. LeFarr is our supreme creator. If he says . . ."

She stopped him, looking up suddenly, with tears flooding her soft eyes. At last she had found a single spark of compassion in the man. A single thread of hope to cling to.

"Do you want me to die?" she asked softly.

Rand's gaze wavered from her appealing expression, but his eyes were still suspicious and piercing.

"If it is necessary that you die, to reinhabit Earth, the sacrifice would be a noble gesture," he admitted. "It is up to the Council to decide."

Sheila lifted her feet slowly to the full length of the divan and settled back full length against the soft cushions. Her face was suddenly soft and her lips parted slightly over white teeth.

"You kissed me once," she reminded him in a sleepy, resonant voice. "You liked me then."

"You were seeking to gain my sympathy for your own good," he stammered. "Even as you are now."

Sheila said nothing. In the depths of her heavy-lidded eyes something as old as the ages stirred the man who stood over her. He had walked toward the divan as though drawn mechanically by a power greater than himself.

"Say that you played upon my senses to gain the place of queen in my world," he said harshly. "Say that you cared nothing for my life and that you care nothing now . . ."

She lifted a slim, bare arm and put her fingers on his arm. It was then that Rand forgot duty came first. There were things within him that no man could fight, even though he should have long ago forgotten the rich heritage of woman and the rise and fall of pulsating flesh.

SHEILA LAUGHLIN, in the hours that followed, made Rand realize why she had been forced to desert him. Made him see why she had slowly built up in the minds of men, affection and love for what she represented.

They sat across from each other, Rand listening eagerly, wanting to believe what she said and for the first time having complete faith in the girl's story.

"At first I was like a dead fish," she said. "Men looked at me and only noticed that I was different and that I was weak where they were strong. Through the papers and the radio-screen, I displayed my body, my voice, all the power that I could master. They started to grow interested in me. Jerry, it wasn't easy for me to create desire in the world. To make men love a woman when they have so long forgotten what women are."

"I'm sorry," Rand said humbly, "that I ever doubted you."

She smiled gently.

"You'll never doubt again," she said softly. "And I'll never again parade before anyone but you. Before, it was necessary if I were to grow important

enough to live and to help you."

"You've done a fine job of it," he admitted.

She came to him, arms outstretched appealingly.

"Oh, Jerry," she begged, "you've got to keep LeFarr from killing me. If this man, Rod Hamilton, can perform the operation, I'm willing to take a chance. If the chances are fifty-fifty that I'll live, it's worth it. With LeFarr, I am no more than a rat, to be cut and tossed away."

Rand stood up, and if Sheila could have realized it fully, she would have made full confidence in the man she now faced.

"I am a member of the Council now," he said. "LeFarr won't touch you as long as I am alive. I'll fight and slug my way through every argument he cares to make, and you'll go under the knife of Hamilton or none at all."

"You won't forget that I'm yours and that you're to trust me?" she asked hesitantly. "If you let me down again . . ."

Rand drew her close to him.

"I can't give you up," he said huskily, "but I'll have to give others a chance to protect and love someone as precious as you are to me."

Rand's fight to obtain Rod Hamilton for the actual operation had succeeded. LeFarr was present and detailed himself to supervise his partner's work. No fingers but Hamilton's would probe the wound.

Rand had confidence that Hamilton would do his best. The scientist was a short, unbelievably fat little man, yet with fingers so long and slim that they seemed an entirely separate part of his body. His face wore its perpetually sober expression and the wrinkled skin around his pouchy eyes quivered slightly as he concentrated his gaze on the girl before him.

LE FARR'S equipment had been hurriedly assembled under the glass dome of the Sky Apartment. Attendants were with Sheila, preparing her for the operation to come. To Rand, as he waited dry mouthed for the thing to take place, it all seemed like a crazy, impossible sacrifice.

Yet, as Sheila was wheeled under the bank of X-ray tubes, he realized that the thing must be done. A waiting world of men demanded it. Sheila's face was white and set with determination. The conditions under which the operation was to take place were sensational to the extreme. Photographers and radio-screen men waited in the outer hall for news. Radio-screens were focused on the table and every move would go to the screens across the world.

Racks and trays of instruments made their appearance. A group of assistants gathered about Sheila.

Rand stood a short distance away, behind a thin curtain of sprayed antiseptic. His eyes never left Sheila, and once, as she was going to sleep under gentle hands, she held two fingers aloft and crossed them. Rand wondered what strange fetish this would be.

The High Judge and LeFarr stood together. Their eyes were glued on Hamilton.

"You are ready?" The old man's eyes were misty with concern for the silent figure on the table.

Hamilton nodded. A strange silence came over the room. Outside, newsmen sensed the change and waited tensely, wondering what word would come from beyond the door. At Sheila Laughlin's head, a tube of ampra-red rose and fell slowly, indicating that her heart was working normally. Rand, watching the thin red line of life, tried to moisten his tongue and failed. Sweat stood out against his forehead.

"SCALPEL!"

Hamilton's hand came down swiftly, smoothly against yielding flesh. His fingers moved deftly and the men about him crowded closer and listened as he shot quick, professional commands at them. The ampra-red line continued to pump steadily up and down. Then, hesitating, it seemed to jerk and waver as Sheila's body felt the first shock of the knife.

The minutes dragged by and Rand stood stiff and waiting. He stood on the border line of sanity, watching the one thing he treasured as it slipped away from him to the brink of death and then returned slowly as the ampra-red started to pump evenly once more.

This was no operation. It was new, even to the pudgy Hamilton. It was only a theory and no more. Rand groaned as he realized that Sheila Laughlin had one chance in a thousand of waking from under the knife.

Rand watched Hamilton's hands as they darted about over the incision. Rand wanted to kill. To kill in cold blood every man responsible for this crime. Yet he dared not move to disturb them. His eyes traveled the circle of white faces and saw them silent under the strain. Every eye was glued to the girl on the table. Hamilton was cutting steadily, working as though the figure under his knife were cold meat.

Then suddenly, Rand had the feeling man gets when he finds faith in himself. He knew that it was over and Sheila would live. Hamilton straightened from his work and an attendant left the room carrying a precious container. Rand watched the ampra-red indicator and it started to pump up and down with quick jerks. He wanted to shout with joy. He went swiftly toward the table, standing a safe distance behind the High Judge.

Then Jerry Rand saw something that made his blood run cold with horror. Harrison LeFarr, waiting at Hamilton's elbow, suddenly drew a long, wicked knife from his cloak. This was no knife of mercy, but a broad blade used only to kill. Rand tried to shout a warning, but LeFarr was on the far side of the High Judge. The knife arose slowly and the others noticed what LeFarr was doing. Then, from the High Judge's cloak a ray gun appeared. The old sage's voice arose clear and commanding above the murmur of voices.

"A fine job has been done, LeFarr. Move not to destroy it!"

The room came alive with excitement. Men's eyes were torn from the girl as they focused on the silent drama. Rand felt his own ray gun in his hand. His fingers were cold and useless.

"Don't shoot, Councilor," he begged. "The blast from your gun will destroy the girl."

LeFarr turned slowly, knife upraised. His face was an expressionless mask but his lips moved.

"If you seek to kill me you will destroy the girl," he said. "I have kept my promise. The world will have women. I am no fool that I should wait with the others for what I rightfully should have now. If I cannot have this female, no one will. My life has become useless without her."

"You'll destroy yourself," Rand warned. "You haven't got nerve enough to come away from her protection and fight like a man."

LEFARR'S temper flared. His arm shot out suddenly and the knife in his hand sped through the air at Rand's head. The younger man jumped to one side and the weapon buried itself in the wall. With a howl of anger LeFarr was upon him and

they crashed to the floor. Rand sent one terrific, hate-filled blow into the man's body and sent him flying back. LeFarr's skull hit the floor with a sickening crunch of bone and he lay still. His neck was thrown to one side, twisted and broken. Blood from the reopened wound on his face covered the carpet under his head.

Somehow Rand knew that Sheila was awake now. He went to her and put his strong fingers over her hand. She breathed more easily and a smile came over her pale face. The two fingers on her right hand were still tightly crossed.

"You've finished *one* job, once and for all," Rad Wallace said. "I never *did* like Councilor LeFarr."

IT WAS the morning of the tenth day after Sheila Laughlin had given new hope and life to a world of men. Sheila and Jerry Rand went quietly through the halls of Creative Laboratories. They watched the men who were filling the test tubes of LeFarr's world with germs of a new female population.

"Harrison LeFarr was a strange man," Rand said, as they emerged into the fountain-predominated court before the building. "He created worlds and held the skill to all surgery in his hands. Yet his own greed destroyed him."

Serious as the subject was which they were discussing, Sheila was so relieved with its outcome that a smile touched her lips.

"Am I *worth* being greedy over?" she asked.

Rand drew her down to the wide bench that circled the fountain and held her tightly.

"I'm a lucky fool to have you," he said simply. "But I'm sorry for the others who have to wait. . . ."

"They've waited for five thousand years," Sheila answered softly. "I guess they can wait twenty years more. Besides, aren't you the one who brought me here?"

He grinned.

"I did, but for a while I thought I'd lost you."

"And I felt like the headline attraction of a burlesque show," she admitted. "I *had* to show them my body to convince them I was worth having around. I didn't have much choice."

They were silent, hands entwined, listening to the soft flow of water from the fountain.

"How does it feel, this being mother of a million baby girls?" Rand asked.

Sheila blushed.

"I'll admit it's the easiest thing I've ever tackled," she said.

Rand drew her to him tightly and kissed her lips. Her body was fragrant and warm against him. They forgot the bright sun that lighted the court around them.

"In spite of it all," Sheila managed to say between kisses, "I *still* think the old ways are best."

MENDING THE WOUNDED WITH GLUE

IT'S rather difficult to believe that wounded soldiers may be glued together as if they were cracked pottery, but science has been able to perform that miracle.

The old way of treating cut nerves was by the use of sutures which involved sewing up the wound with fine threads of silk or human hair. But now two medical research men at Oxford have reported a new technique they have been using successfully on animals. Instead of sewing, they bring the two nerve ends together and use the surrounding tissues to make a degression which is filled with plasma. The plasma concentrate is rich in fibrin which acts as an adhesive to hold the nerve ends together while they mend. The only drawback is that the technique only works if the injury is still fresh, although further research may extend its uses.

Rickhart drew his gun and fired blindly into the onrushing figure

Rickhart, a young commander of a U-boat, found a new target for his torpedoes. But a weird diary foretold his failure.

by

DAVID WRIGHT O'BRIEN

THE hard-jawed young Nazi submarine commander had watched the scarcely moving outline of the old sail-rigged cargo ship for well over half an hour now. Watched through the periscope of his gaunt, gray, sinister undersea shark, while in the confines of its steel walls his crew had grown increasingly impatient.

Rickhart—that was the young U-boat commander's name—had the cunning and the patience of a wolf. Five times in the last four months had less cautious commanders in the West African coastal waters stepped brashly into the jaws of Q-boat traps only to be blasted to the bottom for their foolhardiness.

Young Rickhart was no fool. To his credit was more tonnage sunk than that of any other Axis craft in this area. On the breast of his dress tunic, when he donned it, one could see the decorations bestowed by the Fuehrer himself in testimony to Rickhart's prowess as a crafty hunter.

There was a heavy fog, which had made visibility through the periscope almost impossible at first. Impossible, at any rate, to the immediate extent of studying the leaky old sailing craft to determine quickly whether or not it was a Q-boat whose superstructure would fall away and guns begin to blaze the instant the sub surfaced.

So Rickhart had patiently waited, studying his prey the while through the periscope, straining his keen young vision to make absolutely positive that the ancient sailing bark was absolutely harmless and undefended.

Finally, then, after half an hour or more had passed, young Rickhart pushed his peaked officer's cap back on his closely cropped blond hair, and turned to his second in command.

"Prepare to surface," he ordered.

Throughout the U-boat, as the command was repeated, there was a break in tension and a sigh of relief. Men leaped swiftly to their stations, and the craft's electric motors throbbed to life.

Commander Rickhart's under-officer, a thin, pasty-faced, dark-haired youngster, Lieutenant Borst, studied his superior covertly from his position at the gauge board.

A leaky sailing scow, young Lieutenant Borst was thinking contemptuously, *and Rickhart studies it as if its holds were chocked with bullion, bah! If he fears it so, why does he not give it a torpedo and stand off?*

But young Lieutenant Borst was well enough aware that one does not waste torpedoes on leaky sailing carriers you can shell into fragments. Nevertheless, he thought as he did through reasons that were purely personal and had merely to do with his loathing of the cruel, cocky Com-

mander Rickhart. For though the young sub commander was famed throughout the Reich, and a hero to the Axis nations everywhere, he'd never been held in anything but hatred by the crews he commanded.

Rickhart had left more than one hapless seaman on deck to be sucked to a watery grave in an emergency crash dive, and rumor had it that on innumerable occasions these desertions had been too hasty, and unnecessary.

The pressure drops were being read now, the only voice sounding in the confines of the sub's bleak gray walls of steel. Commander Rickhart stood by the conning tower ladder, while above him, three seamen stood ready to throw open the hatch.

Then the tilting ascension of the undersea shark levelled off abruptly. The hatches clanged, and cold, fresh, blessed air swept down into the U-boat.

They were surfaced.

BRIEF moments later, the crew stood by the deck gun, Commander Rickhart and his under-officer, Borst, stood in the conning tower, and the submarine rode easily in a listless sea.

Lieutenant Borst and Commander Rickhart both had binoculars raised, and through the fog mists were studying the almost motionless old sailing craft which lay a scant two hundred yards abeam.

Lieutenant Borst lowered his glasses.

"I see no sign of life, Herr Commander," he said.

Commander Rickhart continued to hold his binoculars on the prey.

"My eyes are as sharp as yours, fool," he said. "I am aware that there seems no sign of life."

"Do you think it a trap?" Lieutenant Borst asked. His tone was just as goading as he dared make it.

Rickhart lowered his binoculars and stared hard at young Borst until the other flushed pink beneath his pasty cheeks.

"That is not a trap, I am willing to swear, Lieutenant," Rickhart snapped. "Order our gun crew to hold fire. Prepare a rubber boat. I am making an investigation of that vessel."

Lieutenant Borst saluted, covering the look of surprise that came to his eyes.

"Very well, sir."

As his underling left to prepare the rubber craft, young Rickhart raised his glasses again and resumed his study of the seemingly drifting sailing vessel.

She was a three master, holding deep on the waterline. Obviously a relic of days long past in West African trading, she brought to mind the recent news Rickhart had received of many such old craft being pressed into service for short coastal cargo runs by the United Nations.

Yet, as Rickhart continued to study her, there was something in the gaunt, grimly gray outline of the vessel in the fog, something in the tightly furled canvas on her sticks and the absolutely lifeless appearance to her, that made the commander uneasy.

But Rickhart had sensed the attitude of young Borst, and sensed, too, something of the tension of the crew as they'd lain a periscope depth for that interval in which he'd watched the vessel.

He grinned sardonically to himself, shaking off the feeling. Perhaps there was no one aboard. It could easily be possible. In the storms which had ravaged this coast over the past weeks it would be not an unusual matter for the hapless crew of such a miserable skiff as that to have been lost in entirety.

Rickhart didn't like to think that he wouldn't find someone aboard, however.

Otherwise, he'd miss the sport of machine gunning the open boats after the vessel had been toothpicked by shelling.

He took his glasses from his eyes again, slipping them into the case around his waist. He could see Lieutenant Borst standing by the inflated boat. All was ready.

Commander R i c k h a r t descended from the conning tower to the deck.

"Do you want me to take the boat, sir?" Borst asked.

"You remain in the tower here," Rickhart snapped. "I will personally board our, ah, prize. Pick a crew of four men to go with me."

RICKHART sat in the stern of the rubber boat as the four seamen rowed him across the calm, open water to the listless old sailing vessel.

And when they came alongside the old ship, the sailors in the fore of the inflated boat heaved a line aboard and scrambled for the railings above them —a none too difficult feat, since the old craft lay low in the water.

Rickhart stood up.

"Ahoy!" he called loudly. "Any person aboard?"

From the fog shrouded hulk of the vessel there came no answer.

The first two seamen were aboard the vessel, making their lines fast. The two still in the boat stood by while their young commander scrambled up the lines to the deck.

As Rickhart climbed aboard the vessel, he noticed the stench for the first time.

It wasn't strong. It was faint, almost imperceptible. The smell of something that has eaten into timber never to be completely washed out again.

The fog on the deck was thicker than it had been along the water. Visibility was difficult.

Rickhart cupped his hands to his mouth and turned toward the bridge deck.

"Ahoy!" he s h o u t e d a g a i n. "Aboard?"

Again, the fog seemed to muffle his voice in a blanket of mist and silence.

Rickhart spoke to the seaman nearest him.

"An electric lantern."

A steel, battery powered lamp, topped by a leather handle, was flicked on and handed him. Its beam bit suddenly deep into the shrouds of fog surrounding them, illuminating the area of the deck on which they stood with eerie phosphorescence.

Commander Rickhart raised the lantern above his head, so that its beams could play further around the deck.

And then he saw the skeleton.

It lay perhaps twenty feet aft of where they stood, bleached and grotesque in the scuppers.

Rickhart's jaw went hard. A sailor behind him gasped. The other gave a choking cry.

Rickhart's laugh was harsh.

"Little wonder I was given no answer. This hulk is a ghost ship." He spoke the words loudly, a little too loudly.

Young Commander Rickhart walked to the side of the skeleton, and irreverently prodded the chalky bones with his foot.

Rickhart turned to the seamen who'd followed on his heels. He grinned.

"Interesting prize we've captured, eh?" he asked. "I think I shall give it more thorough inspection."

HE TURNED and moved still farther aft. Around the corner of a low cabin hatch they saw the others —skeletons all, about a dozen, lying at weird interangles against a companionway leading to the bridge deck.

Silently, Rickhart played the lantern

on the bleached dullness of that mass of human bones.

One of the sailors, an older member of the crew, spoke shakily, then.

"If you please, sir. Vessels such as this are unsafe. The very timber of the deck we stand on is unsafe. If Herr Commander were to be injured—"

Rickhart cut him off savagely.

"You old fool! Do you think I know nothing of sailing craft? Do you think I know nothing of rotted hulks such as this? My father, his father before him, and his father before him, were all schooled in sail. My great grandfather sailed vessels such as this off this very coast before you were born. I am no thumb-sucking youngster. I am your commander. Hold your tongue!"

The older seaman cringed back whitely from his commander's rage, his eyes bewildered. Nothing he had said should have caused even Herr Commander Rickhart's notorious temper to blaze like that.

Rickhart turned from the litter of human bone. He gestured toward the rail of the ship, commanding the two seamen:

"Over the side. Wait in the boat until I return. I am going to inspect this floating graveyard without stupid interference from my crew!"

He watched the two seamen scramble toward the rail in obedience to his orders. He grinned as they seized the lines and dropped over the side down to the waiting inflated boat.

Then he turned back to his inspection of the ghost ship.

The portside companionway leading to the bridge deck was beyond use, its rails shattered, its rungs crumbling. But the starboard companionway seemed in better preservation.

Rickhart went over to it, tested it, and started up to the bridge deck, lantern in one hand while the other clung to the rung above each step.

Up on the bridge, Rickhart stood there a moment, looking down over the deck below. He took a deep breath, filling his lungs with the damp saltiness of the sea fog. Up here the faintly present stench was not so strong.

Commander Rickhart moved over to the wheel, a rotted mess of spokes and lines which almost crumbled beneath his touch. The binnicle before it, once gleaming no doubt, was a thick green-black of sea decay.

Rickhart moved back to the starboard companionway and descended it gingerly until he was on the main deck again. He saw a half open hatch cover and eyed it speculatively. Then, deciding against the hazards of such an under-deck investigation, he turned away. It was then that he noticed the half-ajar hatch doorway of what had obviously been the captain's cabin.

QUICKLY, Rickhart moved over to it. Playing his light on the rotted surface of the hatch-doorway, he saw that it wouldn't crumble if he opened it still more.

He stepped forward and gingerly slid the covering back, revealing a dark hole below it.

The commander shoved the lantern forward, and its beams revealed what lay below, illuminating the scene eerily.

There was another companionway, leading downward on an angle into what had once been a comfortable Master's cabin. And at the far end of that cabin, just faintly discernible on the fringe of lantern's beam, was a figure in a chair before a desk.

The figure was, of course, another skeleton.

"Ah ha, Captain," Rickhart murmured sardonically, "I have come to

exchange greetings. And what is this? I find you dead, obviously long dead? How so?"

Rickhart noticed then that the companionway rungs looked as if they'd bear his weight. He hesitated, however, arguing mentally against the sudden temptation presenting itself.

He looked back across his shoulder. He should not linger here too long. It was dangerous, if a patrolling destroyer were to nose around. And yet, the fog was an almost positive security against his submarine's being sighted.

Commander Rickhart, holding the lantern high ahead of himself, started slowly down the companionway into the cabin.

Once at the bottom of the companionway, he looked around.

There was a beam peg just within arm's reach directly above him. Smiling, the young sub skipper hung his lantern there. Obviously other lanterns had hung from there.

Now the cabin was better illuminated. On either side of it were bare bunks, the boards of which were warped in decay. In one corner of the cabin was an open cabinet, and in the cabinet was a small arsenal of rusted, incredibly out-moded firearms.

Startled, Rickhart stepped over to the cabinet, examined the guns, then stepped back bewilderedly. The smile had left his cruel young mouth.

"Not *that* long," he muttered. "It couldn't keep afloat, couldn't remain unnoticed for *that* long!"

Then the skeleton seated bofore the desk and the far end of the cabin attracted his curiosity. Swiftly, he stepped over to it. With his foot, he jarred the chair, splintering the rotted wood and knocking the bones of the skeleton from it.

Stepping over them, Rickhart leaned over the desk, where on open, yellowed volume had rested between the skeleton's arms.

The script on the yellowed pages was so faded that Rickhart was forced to return to the beam peg in the center of the cabin and remove the lantern from it. Then, with the lantern in hand, he went back to the desk.

Now, bending over the yellowed volume until his nose almost touched its pages, and holding the lantern directly over it, Rickhart was able to make out the faint, blurred script.

It was written in German, in a flowing, bold hand!

"Gott!" Rickhart gasped.

HE REACHED forward and moved the book, half expecting it to fall apart. But it didn't. Thus encouraged, he turned back its yellowed pages ever so carefully until the first page was revealed. Lettered there, in German script, was the legend:

"Log of the ship Sinister."

Involuntarily, Rickhart shuddered at the unhappy choice of a name for this vessel. Then, carefully turning the first page, he read the opening insert.

A list of ports departed from. A crew listing. Navigational statements. Cargo details. Some of it readable, much of it blurred.

Rickhart flipped on for several more pages. Then he came to a faintly readable entry which made him pause.

"Picked up cargo lying close off coast tonight. Two hundred blacks. Fifty lost in bringing them from village. Holds cleared and they are now stored there. Will . . . clear for night . . . avoid any British warships . . . possibly . . . vicinity."

Quickly Rickhart turned the crumbling page, only to find that the next page and the page after it were impossibly obliterated. But there was an

entry on the succeeding page which he was able to read.

"Think . . . made bad choice in Second Mate Stover . . . No stomach for this job. Sick easily at sight of blacks chained in holds. Too friendly with crew Must watch him."

Again Rickhart found the remainder of the page obliterated. And he was forced to turn half a dozen more this time before he was able to find another entry which he could read.

"This is fifth day becalmed. Crew restless. Blacks in hold beginning . . . stink. Terrible heat. Stover, second mate, tried issue water supply to blacks. Wouldn't stop when told. Forced to knock him down. Beginning to distrust crew.

The next pages were a matted yellow mass of dried pulp, almost a dozen of them inseparably stuck together. Then there was another readable entry. This much longer than any of the others.

"On this sixteenth day becalmed it happened. Open mutiny. Stover leading crew in effort . . . seize vessel . . . Personally shot fifteen mutineers . . . First Mate Grenheim with me. We seized water and food casks, so they will die of thirst and starvation if . . . refuse to surrender. First Mate Grenheim taken over bridge deck. I cover from Master's cabin. We hold sweep of vessel."

There were three obliterated paragraphs, a mark indicating the end of the entry, then the start of another legible one.

"No entry yesterday. Stover and mutineers tried for control of bridge, failed in day-long battle. Killed eight of them this time. Only two left, now, besides Stover. Don't know where they get scant supply of water to keep them alive. First Mate Grenheim badly wounded defending bridge. Think . . . will die. Probe for shot useless. He grows delirious. Calm and terrible heat unchanged. Blacks must all be dead by now. Their stench putrid. Mutineers gave up trying to feed or release them long ago. First Mate Grenheim and myself kept hold hatches under fire in . . . each attempt of mutineers to release blacks."

Almost frantically now, Rickhart cursed as he encountered another series of illegible entries. Then at last he found another which he was able to read.

"With death of First Mate Grenheim yesterday . . . am now quite alone. Suspect, however, Stover's two companions are dead and that Stover's own strength is almost spent. With pitiful food and water supply it is wonder he is not already dead. If I am correct about his fellow mutineers, that leaves but the two of us alive aboard the Sinister. *Only one will survive, and I will be that one. Have plan to get Stover to waste last of ammunition this afternoon. If successful, will get him tonight."*

THE page and the entry ended there, and Rickhart turned it quickly, suddenly realizing that he had turned to the final entry sheet in this hideously grim logbook of death.

Rickhart noticed at once that the final entry page was more legible than the others, but that the hand that wrote it had been far less steady. Eyes wide, he bent to read it.

"My plan this afternoon succeeded. Stover, fooled by the ruse, expended his last ammunition. He undoubtedly expended much of his last strength. I waited until nightfall, and even then a little longer, before leaving the cabin. I could sense that he knew I crept across the moonless deck, as he waited almost dead behind his barricade of

empty water casks. I could feel his eyes following my stealthy approach, even though I was reasonably sure he could not see me. The hideous stench coming from the clamped lids of the holds where the blacks died, almost suffocated me as I inched slowly past. Moments later, and I was but yards from the barricade behind which Stover lay waiting. Another moment of cautious approach, and I could hear the faint groans coming from his accursed throat. The tortures of thirst were becoming known to the foul mutineer. . . . My swift rush caught him unable to resist, just as I had anticipated. He was lying helpless on his back as I leaped the barricade. His eyes were fever mad, his bearded face twisted in torture, and he screamed at me in a rattling, choked half-human rasp, his horribly puffed lips scarcely able to form the words. 'Enslaver!' he screamed, 'You shall die and die again for every shackle you seek to fetter to the arms and legs of God's children.' His mad scream enraged me beyond all power of reason. I lost all caution, not noticing the pistol he'd had clutched beneath the filthy tatters of his blouse, and suddenly dragged forth. Even as I raised my rifle butt to bring it smashing down on his accursed skull, that pistol he'd concealed split the night with flame. I felt the bullet tearing hotly into my chest before I realized how I had been betrayed by this dying swine. And at that moment the butt of my rifle splashed his brains across the deck. He was dead, quite dead. One of us had survived. I had been that one, just as I had vowed. The wound in my chest was ugly. I tried to stem the blood to no avail. In the cabin, now, as I write this, I see that the second effort to stem my wound was not any more successful. I shall have to try again, for even now I feel a dizzying weakness, a frightening weakness, as my blood forms a small, shiny pool at my feet."

There was no more. The entry ended there, and the yellowed pages following it were blank. With hands that shook visibly, the young Commander Rickhart leafed back to the first page. Again he saw inscribed in German script:

"Log of the ship Sinister."

And then, down in the lower left hand corner of the page was a small signature which he had not noticed until now. The signature was faded, but still discernible.

"Captain Wolfgang Rickhart," it read. *"Master."*

Young Commander Rickhart stared in horror at the signature. His own words of but moments ago, words spoken wrathfully to the older seaman who'd advised him against going over this vessel, came back to him with chilling clarity.

"My great grandfather sailed vessels such as this off this very coast before you were born."

And they'd been words of truth. His great grandfather Wolfgang Rickhart, had sailed off this coast—

It was at that instant, as young Rickhart's eyes were drawn irresistibly to the rubble of bones and the grinning skull that had been seated before the desk, the bones of Wolfgang Rickhart, that the voice sounded at the entrance of the cabin. The voice that chilled the very marrow of the young Nazi U-boat Commander Rickhart. A voice that was more of a choked, rasping, scream than a voice.

"Enslaver Rickhart!" it rattled.

YOUNG Rickhart wheeled. Wheeled to see a hideous spectre of a man, a tattered, bloody, filthy caricature of a human being atop the high-

est step of the companionway and glaring down at him.

"Who are you?" young Rickhart gasped.

The creature began to move down the companionway into the cabin. Teeteringly, relentlessly. And then Rickhart saw its head, or what had once been its head. One half of it was a mess of smashed bone and blood and brain. It couldn't be alive with a skull as badly crushed as that.

But it moved relentlessly on toward Rickhart.

"Stover!" young Rickhart gasped, scracely realizing he'd spoken the name.

And then he saw the long sharp marlinspike in the creature's hand. And in what was left of the creature's face, the young commander read the intent behind that crude weapon.

Instinctively, Rickhart's hand was at his side. He found the automatic holstered there, and in a single motion whipped it free and was blasting shot after shot into the body of the creature stumbling toward him.

The din was earsplitting, the reverberations thunderous. The creature halted not a second. Now it was less than two feet from Rickhart, marlinspike raised high in its clawlike hand, coming onward.

Rickhart screamed shrilly, piercingly, hurling his empty gun into the face of the thing.

The blow was swift, the marlinspike dug deep through bone and into the brain, embedding itself in Commander Rickhart's forehead as he pitched headlong to the cabin floor. . . .

THE seamen who'd waited alongside the ghost ship for their young commander were never able to explain how that floating hulk of rotted timber had burst so swiftly and uncontrollably into flame.

Inside of a moment, it seemed, the entire craft was blazing wildly from stem to stern.

One of the seamen in the rubber boat tried to get up over the side of the ancient sailing vessel. But his companions prevented any ideas he might have had about delaying them all in an effort to save the commander. They dragged him back into the inflated craft and paddled furiously out of harm's distance.

And it will never be known if the submarine's presence on the surface was revealed to the neighboring British destroyer by the flames of the old ship, or by the sound of the U-boat's recharging batteries.

For the British destroyer arrived at the scene of the blazing old hulk just as the U-boat was starting its crash dive. The undersea boat never had a chance. Two shells caught it seconds before it started to submerge. There were no survivors. . . .

FEEDING ULCERS TO SAVE THE PATIENT

MANY doctors follow the practice of not allowing their patients afflicted with bleeding ulcers of the stomach or upper intestinal tract to eat any food because they believe that if the digestive system does not have to work the wounds will heal faster. However, the death rate of this ailment is nine per cent and it is the opinion of Dr. T. Grier Miller of the School of Medicine at the University of Pennsylvania that this figure is at least three times what it should be.

He does not believe that just because the stomach is empty it stops working but does believe that an empty stomach will contract to produce hunger pangs and secrete acids that will aggravate rather than heal the ulcers. To prove his theory, Dr. Miller put 1500 ulcer patients on a well-balanced diet of substantial meals and showed a death rate of only three per cent. This research may pave the way for an entirely new method of curing ulcers.

THE BATTLE OF THE SEXES

By LYNN STANDISH

Which sex has the edge on the other? Here are a few facts on the subject which answer (?) the question.

UNIVERSALLY a topic of heated discussion is the question of the superiority of one sex over the other in a particular field. Unfortunately, of course, emotion has dominated reason in these arguments—and entirely unwarrantedly, for there exists today a great body of knowledge based upon scientific experiments on the differences between men and women in various types of behavior.

The first such study, made almost 50 years ago showed that men did better in motor tests of speed and accuracy of movement and quickness in solving problems designed to test "ingenuity." Women did better in the same motor tests of speed and accuracy when colored cards were used instead of other objects, and they did better in tests of rote memory. In tests of taste, smell, pitch discrimination of sounds, and in the accuracy of judging weights, there were slight or no differences.

In a later series of tests, school people were rated by teachers on athletic aptitude, intelligence, shyness, conscientiousness, and good temper. Boys were found to be more athletic, more noisy, more self-conscious, and quicker-tempered than girls. Girls were found to be shy and more conscientious. And, as rated by their teachers, no difference in intelligence was noted.

Hundreds of studies of sex differences have followed these pioneer attempts. Of course, many fields were found where there were no differences or where the differences were too slight to be significant. But major and reliable findings have been published about the topics of differences in physical characteristics, differences in the ability to use the senses, differences in motor and mechanical abilities, and differences in mental and emotional traits.

The following have been proved by experiment:

Until puberty (and usually even throughout early adolescence), girls advance more rapidly in height, weight, dental growth, anatomical maturity, and physiological development. The female's brain is smaller than the male's but is heavier in proportion to the total body weight. Women's hearts beat faster and their simple reflexes (like the knee jerk and the dilation of the pupil) are usually quicker. Men have larger muscles than women and excel them in endurance, physical strain, and athletic achievement.

In the field of sensory discrimination, women test consistently faster in finding differences among colors and in rapidity of perceiving objects. Men endure pain better and usually judge differences in weight somewhat better than women do.

In tests where the aim is to cancel designated items, women are consistently faster. Other tests of differences in motor and mechanical traits show that boys do better in performances where manipulation of objects, tracing mazes, or visualizing spatial relations are involved. Tests of mechanical aptitude, mechanical construction, and knowledge of mechanical things show, too, that boys do better than girls. In simple tests of tapping and tracing, no differences have been found.

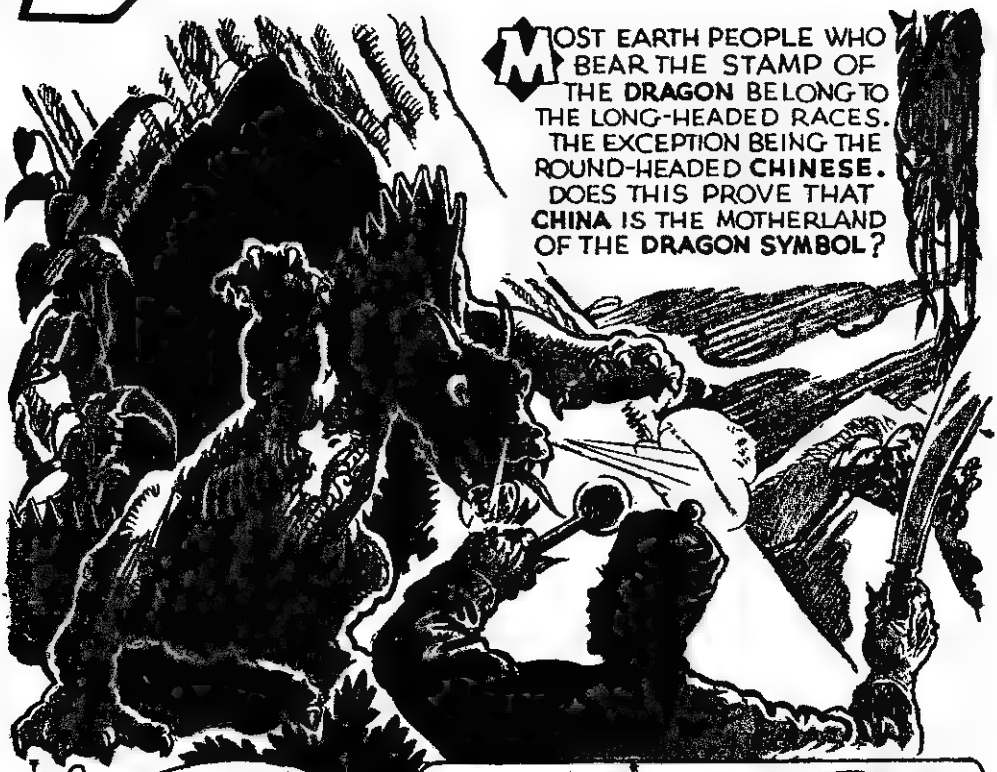
In tests of differences between the sexes in mental and emotional traits, several significant facts have been discovered. Women do better than men in nearly all measures of memory. They do better on vocabulary tests, on tests of language usage, and on other tests where verbal association and literal rather than numerical items are involved. Men, however, do better in tests involving numbers, geometric ideas, or arithmetic reasoning and computation. On general information tests, too, such as those on current events, scientific discoveries, and historical facts, men score consistently better.

In mental traits, the male sex has been found to be more variable; hence there are more male geniuses than female geniuses—and, by the same token, more males in the feeble-minded class. Girls, as a rule, make higher school marks than boys. But this has been attributed to the slower physical development of younger boys and to the greater docility of the girls. Boy rebels make poor scholars!

Studies in the realms of emotional and temperamental traits have reported women to be more interested in persons and personal problems, while men are more intrigued by mechanical things and abstract activities. Women's thoughts were found to stray to subjects associated with personal ornament and to concrete, everyday problems, usually related to the individual human being. Men's associations wander to business relations, to money-making activities, and to matters of general and abstract interest. In tests of honesty, no differences were found, although schoolgirls excelled schoolboys in tests of moral knowledge and social attitudes.

When appraising these differences it must be remembered that when the words "is better" were used, the meaning intended was "is better on the average," since overlapping occurs, of course. Even with this consideration in mind, let's expect to have a more scientific argument tomorrow morning at the breakfast table when the wife says, "Men are dumbbells." Many a home can restore its tranquillity with Dr. Science at the helm, you see.

Scientific



MOST EARTH PEOPLE WHO BEAR THE STAMP OF THE **DRAGON** BELONG TO THE LONG-HEADED RACES. THE EXCEPTION BEING THE ROUND-HEADED **CHINESE.** DOES THIS PROVE THAT **CHINA** IS THE MOTHERLAND OF THE **DRAGON SYMBOL?**

JOE C. SEWELL

ARE THE WEIRD SYMBOLS, CARRIED BY **HALF CIVILIZED TRIBES** IN THEIR DANCES, REALLY AN **EMBLEM** OF SOME WATER-RULING MOTHERLAND OF THE DIM, DEAD PAST ?

TWO **SYMBOLIC DEMONS** REPRESENTING WORLD-POWERS OF ANTIQUITY ARE THE **DEVIL** (*Who has horns and cloven hoofs and carries a three-pronged weapon*), AND THE **DRAGON** WHOSE WEAPON IS FIRE. BOTH ARE KNOWN AS **"SPIRITS OF EVIL."**

Mysteries

WHO WERE THE PEOPLE OF THE DRAGONS?

By L. TAYLOR HANSEN

Maybe scientists aren't as religious as most folks, but the fact is they are more interested in ancient devils than gods

HAVE you ever stopped to think that, scientifically speaking, gods are not as interesting as their respective devils? The reason becomes obvious when one realizes that the devil is usually to be identified with the god of the conquered civilization. Making him a devil is really a compliment. It means that he has been too powerful to be accepted as a satellite in the train of the conquering god. It means that if he had been thus incorporated, the priests of the conquering god might have found that he outshone their own deity. Therefore they solved the problem for all time by making him "taboo" and he then became the "Spirit of Evil."

But, alas for the "forever" of religious styles! Modern science bestows but a passing glance at the god of the people it is studying before it turns to scrutinize their devil! For as you may infallibly trace a people in their migrations by the god they worship, so you may discover what great civilization they overcame, by studying their devil.

There are two main devils whose extent should mark them as world-powers in the distant past. One has horns and cloven hoofs. He carries a three-pronged weapon. The weapon of the other is the fire which pours from his yawning jaws. He is the Dragon. The former is almost entirely Atlantic. The latter, especially if we include with him the serpent, and it seems as if we must do so, is the most powerful and the most ancient of all the world-encircling totems.

It seems probable that very anciently—beyond all possible grasp of dates, the Dragon might have been the colony of the Serpent for both are spoken of as connected with water. The Serpent, by its form and color represents water while the Dragon is always described as "going through water" as well as "fire breathing," as if these phrases were part of its original title.

It also seems probable that very anciently, beyond all possible grasp of dates, a great war was waged between the totems of the Serpent and the Fire-Eagle. Our first hint of this conflict is given us by the Algonkin Indians who, scientists tell us are linguistically isolated, island-fashion, in the Great Lakes region, and probably represent, along with the Northwest Eskimos, the first disharmonic population of North America. The Algonkins insist that before the sun had arisen (End of glacial period? Or the rise of a Sun Empire?), the Serpent had been attacked by the Thunder-Bird (Fire Eagle), and the echoes of that mighty conflict echoed around the entire earth! The Thunder-Bird won at last, but then came the flood, and the results were nullified.

The present writer asked "Old Marksman" of the Chippewas (an Algonkin tribe) to draw a picture of this Serpent. Painfully and with fingers stiff from age, the old man began the drawing. But as it took form, the "Serpent" was a huge dragon with three-toed feet, and a great mouth from which fire and a long tongue issued! And it had horns.

THOUGH this is probably the oldest story of the Dragon, the next in age undoubtedly comes from Sumer. When the kings of Nineveh had their scholars translate the Sumerian texts, the ancient language had been dead for more than a thousand years. Ashurbanipal had the largest library of these antique texts to reach our century via the spades of the archaeologists. Among them was this story which shows that even in the time of Sumer, the Dragon had already become to her later people, the "Spirit of Evil."

A female dragon by the name of Tiamat (which loosely translated seems to have meant "Mother of Chaos") had created numerous demons of destruction. (This ancient bit of propaganda even outdoes our modern masters of the art.) With the help of this unholy army, she declared war upon the gods. One particularly valiant god decided to slay her and save his brother gods the trouble. He only asked that the four winds help him. As Tiamat advanced, with the evident intention of swallow-

ing him, he hurled the four winds into her open mouth. This swelled her up to such dimensions that she became helpless. Thus he was easily able to overcome her craftiness and kill her.

When Tiamat had been slain, he sliced her open with his sword and fashioned the under part of her body into the earth and the upper part into the heavens. Now while glancing around in triumph the god discovered that Tiamat's husband was hiding nearby where he could enjoy the spectacle of the battle. Dragging this ungallant individual forth, the triumphant god cut off the husband's head, and as a sort of afterthought, fashioned the races of mankind from the blood which was pouring forth upon the ground.

The identity of the hero-god of this story changed with each new religion that swept that portion of the Mediterranean. Originally he was either the Sumerian warrior Ninurta or the god Enlil. Marduk, the deity of Babylon, was then substituted, but after the rise of Assyria, Ashur (the one who, holding a bow and arrow, is shown emerging from the sun-disc) was given the honor. After the rise of the Jews, Jehovah became the "Slayer of the Dragon," while still more recently the credit has gone to St. George and the story has become but a minor myth.

Closely associated with this story was one concerning Gilgamesh who sought the plant of life upon a distant island, and whose journey there took many years. The plant, however, was devoured by the Serpent "Sia" before he could obtain it.

This story immediately reminds one of the "golden apples" of the Hesperides, the daughters of Hesperus, which were guarded by a great sleepless dragon, in the beautiful Atlantic island which was their home. (From our Greek myths, we will remember that to obtain these "apples" was the twelfth labor of Hercules.) And we should also remember that Vulcan, sometimes connected with Atlantis, the god of volcanoes, had the Greek name of Hephestus. Furthermore, the Greeks called a land out in the Atlantic Ocean "Fair Hisperia," while the ancient name for Ireland was Hibernia, and Spain—Iberia. The Basque language was called the Iberian tongue. The main river of Spain, the Ebro, was once the Iberus.

The land of Ancient Iberia was, on the other hand, south of Russia, in about the location of the present Georgia. Therefore, the people of Sumer, who were great sea-farers and spoke a Hamitic tongue not unlike Basque, might have, in early days, been connected with the Atlantic lands, since the tongues of the present Russian Iberians and the present Basque, though separated by so much territory, are apparently still mutually understandable.*

THIS possibility makes the Ancient Sumerians (now extinct) a most interesting people. Furthermore, excavations of their cities discloses that they were once almost wiped out by a tremendous Mediterranean flood which left an eight-foot drift over their earlier cities. Were the earlier Sumerians in contact with the lost island whose destruction has so deeply colored the legends of so many different peoples? The Atlantic Island which was supposed to have been destroyed by this flood? Did Sumer trade with Atlantis and other antediluvian powers? Those world-powers which are today represented by the shadowy tales of gods and demons?

In the debris of this ancient civilization of antediluvian Sumer, or Su-Mer, as it was probably pronounced, a most interesting little figurine came to light. Scientists identified this tiny statuette of a woman as the "Mother-Goddess" whose worship seems to underlie almost every primitive religion, showing that at one time it was extremely extensive.

Her description is most enlightening. She is veiled, the veil being bound across the face just below the eyes. Across the forehead of the figure are six large discs, while over the ears are tiny strands of braided hair bound tightly together in such a fashion that they give the appearance of two ears of corn hanging end to end.

To suggest that they were corn (Amerind corn) would be quite unscientific as this food was apparently entirely unknown in "the old world," and in that matter Sumer was no exception. Botanists tell us that corn has taken from five to twenty thousand years to bring it to its present state, with the most probable estimate being somewhere between ten and fifteen.* The Indians say they received the gift from "Mother Corn," the "Corn Maidens," "Mother Scorpion" or the "Corn People" after the flood, depending on the tribe. Was this the plant which the dragon guarded so well?

One other physical characteristic of the "Mother Goddess" which must be noted is her strange goggle-eyes. She is so pop-eyed that she appears to be wearing glasses. As for the rest of her costume—perhaps it would not be unscientific to suggest that the modern Arab and Turkish dancing girls inherited their costume from the ancient goddess!

THE pattern of the Dragon culture is a very interesting and significant one. The Atlantic area finds it relegated to the underworld, or to the "Spirit of Evil" with some curious and most intriguing exceptions. Those exceptions are "island-cultures"—people who now have more in common, although there is an ocean between them, than they have with their immediate

*As recently noted by Braghine.—ED.

*Dr. Walker, So. West Museum of Indian Antiquities.—ED.

neighbors. Yet we can trail the Dragon around the earth into the Pacific where the totem is held in reverence, but has degenerated into a decadence of detail, which nevertheless, retains its essential characteristics. Between these two extremes, lie the Americas where the culture blends from the simple to the complex. What does this culture-pattern mean? If Asia is the original seat of this culture, why does it not have the oldest and most primitive forms?

Or, on the other hand, if the massive Empire of China with its more complex five-toed dragon, sent out excessive waves of dragon-culture through the more simple, but still decadent and detailed Japanese three-toed totem, then why are the more complex South American forms cut off by the more simple Seri (Lower California) form?

Furthermore, why are almost all the people who bear the stamp of "The Dragon" long-headed people, with the single striking exception of round-headed China? In the light of this fact, is it possible to consider China as the mother of The Dragon?

Is it not more logical to regard The Dragon as having entered China from the Pacific? Especially when we consider that China, in common with all round-headed peoples, trace their descent through the father, while all the other "People of the Dragon" (with the still questionable exception of early Japan) trace their descent through the mother?

What great world-power was it that thousands upon thousands of years ago linked the shores of Northern Europe with far-away China? What could the Norse Dragon, Fafnir the wife of Wodin and mother of Atli and Brunhilde, tell us today of the times "before the races had mingled and nations came into being"? Do not these very words, together with the fact that Fafnir is hated and feared for her wisdom, suggest the clash of tremendous powers, the most ancient and cultured of which was—The Dragon? Furthermore, does not the relationship with Wodin, or Vodan, suggest that he was probably the monarch of the defeated kingdom?

THE question which naturally follows this suggestion is, if Wodin was the last emperor of the Serpent Totem, or The Dragon, (the name seems to be used almost interchangeably in the Norse Rhunes) then why did the conquering Goths accept him into their hierarchy instead of consigning him to their underworld with the same measure of hatred which they express for his totem? The answer is a most daring guess —that the *rhunic script belonged to the conquered people.*

If it did, then there must be other relics, no matter how fragmentary, of a "lost writing" among other widely-scattered members of this great dawn-power.

Furthermore, there should be other scraps of information like that furnished by the Algonkin tribes of a Fire-Eagle vs. Serpent War. Where did this clash, which was to be "echoed around the earth," first take place? Where was the motherland of each of these two mighty totems?

Or that strange schism which split the Ancient Totem of the Sea into two powers, sometimes symbolized by two dragons, mother and son, such as we have in the old Norse relic Beowulf, and sometimes symbolized by the Serpent designs and the more decadent Dragon? What can we learn of it? Is it possible that the old Roman "Festival of the Saturnalia," which in new garments we celebrate at Christmas, is in reality but the lost memory of an "Independence Day" once celebrated upon some sunken Atlantic homeland? Yet who was this Saturn, the god it honored, and for whom we have named the seventh day of our week Saturday or Saturn's day? And what was the power against which he led his people in revolt?

Is it possible to seize these threads which have come down to us through the mists of the past, and with the help of legendary fragments from the rich storehouse of illiterate peoples, together with the most ancient written records, reconstruct again something of a patch-work pattern which will add to our knowledge of the antediluvian world?

Of course, we can never learn the entire story, and we must ever carry the spirit of doubt with us so that we may check one type of knowledge against another. Yet perhaps after we have examined many fragments, we can gain enough of a picture of that shadowy world to locate the main powers which began to contend for mastery after the first shocks of catastrophe rocked the capitol of the first world-colossus, even though we may not be able to follow the water-ruling motherland through all the phases of the succeeding disasters which finally reduced her to a weird symbol carried in curious dances by what we choose to call today —"half-civilized peoples."

REFERENCES FOR
THE PEOPLE OF THE DRAGON

Squier, E. G.—The Serpent Symbol.
Chiera—They Wrote On Clay.
Daniel C. Brinton—Myths of the New World.
Saunders—Indians of the Terraced Houses.
Joyce—Mexican Archaeology.
Joyce—Ancient Life in Mexico and Central America.

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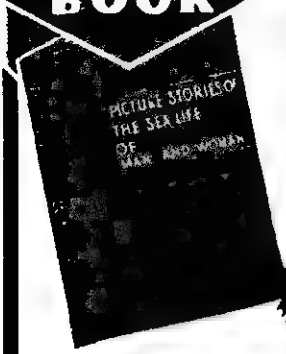

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Meet the Authors

MY ENTRANCE into the world was a very informal and unostentatious one, taking place on April 4, 1921, in the now not-so-little town of Stevens Point, Wisconsin. It seems that my arrival caused some complications, for my parents found it necessary to move to Chicago shortly after that.

What I remember of my early life is a long record of illnesses. I was—and still am—an intensely active person, and I kept myself so run down that I caught everything from pneumonia to mumps. The climax of my afflictions was reached in my last year of grammar school where, after three, wild, delirious months of serving as hall-guard, police-boy, monitor, reporter for the school newspaper, member of glee club and chorus, room artist, errand boy, and teacher's pet in general, I succumbed to a sudden onslaught of spinal meningitis, which left me as deaf as the proverbial post.

My fun didn't end there, however. On the contrary, it just began. Finishing grammar school without the loss of a grade, luckily enough, I entered Chicago's vast and beautiful Lane Technical High School, and there, amid the well-stocked shelves of its library, I really became acquainted with reading. My introduction to literature had really begun at seven, around which time I absorbed such classics as "Robin Hood," "King Arthur," and "Gulliver's Travels." But prior to high school, such activities as marbles, skating, swimming, and cops 'n robbers had occupied all my time. At the end of the third year of high school I wandered from shelf to shelf, fruitlessly seeking something which as yet I hadn't read, or at least had an inclination to read.

It was around that time that a friend gave me several old copies of AMAZING STORIES, and even before I had finished reading the first magazine I was a confirmed science-fiction addict. The thrill of those first s-f stories lingers with me yet, though it is something which I have never been able quite to recapture to its early, full extent. Now, however, came a period when I read s-f exclusively and insatiably, haunting second hand bookshops and magazine stalls.

In my last year of high school I met W. Lawrence Hamling, who not only became one of my best friends, but also furnished me with the springboard with which I jumped into writing. At that time Bill Hamling was editor of our high school magazine, THE LANE TECH PREP, for which he pounded out reams of s-f and fantasy. He was also—and then, just lately—the author of a short story in AMAZING, "War with Jupiter," which he wrote in collaboration with Mark Reinsberg, a once prominent s-f fan.

Chester S. Geier

Bill Hamling's success in s-f writing (he's in the army now) turned my mind to a hitherto unrealized side of this, to me, new and enthralling literature. Very suddenly, I decided that I was going to be an s-f writer myself. I plunged into the business immediately, with the fierce eagerness and determination with which I have always done everything, from playing marbles to making love.

I got books on writing from the library, bought up all the second hand and brand new writer's magazines I could find, and studied s-f stories where I had merely read them before. For more than a month I pickled myself with this literary brew. Then I wrote my first story, something or other that had to do with absolute zero, and Bill Hamling accepted it for the PREP. A second story, which followed shortly thereafter, met with the same success.

Graduation cut short further work for the PREP. I found myself an honor student with a four-year scholarship to the University of Chicago. I was very unenthusiastic about this latter, since it meant that college study would monopolize all my writing time. I entered, however, and stuck it out for two years, with a straight record of C's. Even now, I can't understand just how how I managed it, for during that time I collected a score of rejection slips, had two professional acceptances, read science fiction, met and carried on correspondence with a dozen-odd authors and fans, assisted Bill Hamling in the birth and demise of STARDUST, "The aristocrat of fan magazines," went out with a half dozen different girls, and to top it all, passed my exams.

These activities left their effect upon me, of course, both physically and financially, and further college work was impossible. I quit, after

(Concluded on page 237)

DISCUSSIONS

AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

"A RIGHT TO SAY SOMETHING"

Sirs:

I have been reading your magazine for so many years that I feel I have a right to say something. I read "Warrior of the Dawn" and found it excellent. Expecting a sequel to it, you can imagine my disappointment when I didn't find it in the February issue. Tell Browne to write one or *else!* Besides that, I found the magazine okay. Here's how I rate the stories:

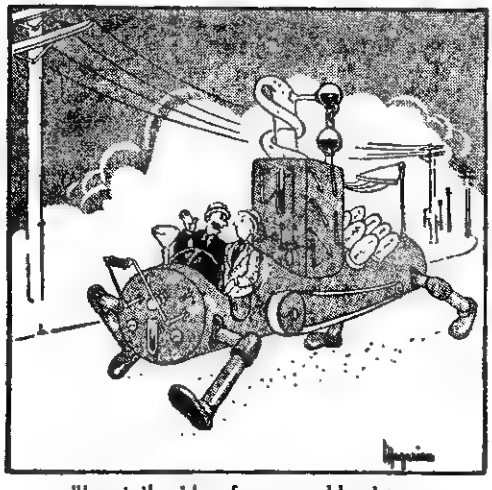
1. "Skeleton Men of Jupiter." Carter stories are always tops with me. St. John is excellent as the artist on these stories. Don't change.
2. "The New Adam."
3. "The Persian Carpet."
4. "A Pawn for a King."
5. "Visitor to Earth."
6. "Ard of the Sunset People."
8. "Phantom from the Film."

The artists I rated as follows:

1. Magarian (always tops); 2. Virgil Finlay; 3. Ned Hadley; 4. Hadden; 5. Rod Ruth; 6. R. Fuqua.

Never in the past have you disappointed me, so have Browne write a sequel, *please!*

ROBERT SIMINOFF,
660 Powell Street,
Brooklyn, N. Y.



"I got the idea from an old science fiction magazine cover—when I put it together, the darn thing worked!"

MORE BURROUGHS

Sirs:

Your February issue of AMAZING STORIES was very good. How about more issues like this one? The best story by far was "Skeleton Men of Jupiter" by Burroughs. How about more Burroughs? Second was "Phantom Transport" by Leroy Yerxa. How about more Lancelot Biggs, Horsesense Hank, Hok, etc.? What's the matter with Wilcox, Bond, and Cummings? Especially Cummings.

RONALD GOULD,
2534 Cochran,
Los Angeles, Calif.

RATES THREE ISSUES

Sirs:

First, November issue: "After an Age," a superb story, dear editor. "Juggernaut Jones, Expressman," please very much more of this Jones fellow. "Murder from the Moon," just fair. Best pic was Fuqua for "The Silver Coil." Worst was Jackson for "Nazi Diamond." The cover was absolutely super. Ditto back cover.

Now, December: "Warrior of the Dawn," where's the stf.? "The Sphere of Sleep," different. "Monsoons of Death," don't know why. The worst, "One-Way Ticket to Nowhere," just plain rotten. Best pic, Fuqua again for "Monsoons of Death." Worst, Jackson for "Planet of the Gods." Please tell him his heroes look muscle-bound. Cover excellent. Back cover good.

January: "Death Makes a Mistake," "Rats in the Belfry," and "The Lost Warship." "Warrior of the Dawn" was not counted. There were only two poor stories in the issue, "Queen of the Flaming Diamond" and "The Cosmic Deflector." Best pic, McCauley for "Death Makes a Mistake." Worst, Brady for "The Cosmic Deflector."

Now for some constructive criticism: More cartoons, more Binder, Burroughs, Juggernaut Jones, Finlay.

GEORGE RICHARDSON,
73 Hersey Street,
Hingham, Mass.

More Jones, as you'll notice, in this issue. And we have more on our desk for future issues. Burroughs will return, and also Finlay. We'll keep up the cartoons. We hope to have Binder back in the fold soon.—ED.

BEST FOR HIS MONEY

Sirs:

I have been reading AMAZING STORIES since October issue, 1942, and would like to congratulate you on a fine magazine. At first I experimented with different magazines and found AMAZING best for my money.

Here are some facts about your magazine:

1. Swell illustrations.
2. Good stories (especially Feb. issue).
3. The size is perfect (in pages).
4. The letters are right for reading.
5. Back cover—well drawn.
6. Discussions—recently the discussions have been shorter, but please lengthen it. I am sure everyone will agree.
7. Your authors are all good.

Here is a suggestion: why not have a ballot so everyone who reads AMAZING can vote and see in the next issue which story came in first, second, third, etc., and how many votes they got?

MICHAEL ANDREWS,
7304 Tioga Street (8),
Pittsburgh, Pa.

The editors read fan mail very carefully, and note the order in which the stories are rated; but we don't tip off competition by publishing those results. Only your editor has the inside information that enables him to keep your magazine the top in the field.—ED.

ELEVEN BEST STORIES

Sirs:

The first issue of AMAZING STORIES I bought was the January 1941 issue. I have every issue since then. I also buy every issue of *Fantastic Adventures*. In my opinion the 11 best stories in AMAZING for 1942 are:

1. "Disciples of Destiny," great serial.
2. "Adam Link Saves the World," very good story.
3. "Tiger Girl," Burroughs' stories are always swell.
4. "The Avengers," McGivern is one of my favorites.
5. "The Return of Hawk Carse," wonderful story.
6. "Secret of the Earth Star," very good story.
7. "Blitz Against Japan," very good story.
8. "Crusade Across the Void," one of the best stories I've read.
9. "The Hollow Planet," quite different, very good.
10. "After an Age," one of the best stories I've read in AMAZING. Binder is a very good writer.
11. "Warrior of the Dawn," the best serial I've read in AMAZING STORIES.

Your February issue is very good. The best two stories by far were: "Skeleton Men of Jupiter" and "The New Adam." If the second part of this story is as good at the first was, it will be better than "Warrior of the Dawn."

CARL TYSON,
1558 N. Commonwealth,
Hollywood, Calif.

Let us know if the second part was as good!
—ED.

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AMAZING DEPTH OF PERCEPTION

Sirs:

I have just finished reading the first instalment of Weinbaum's "The New Adam," and, having an entire evening with nothing to do, I hereby compose my first letter to *any* magazine.

I have been reading your magazine, and your companion magazine, *Fantastic Adventures*, for some time. I cannot say that I enjoy all of your stories. However, I find that a regular perusal of your magazines gives me glimpses of interesting and desirable worlds of thought, a sort of Khayyam gesture—"Better a glimpse of the tavern found than in the Temple lost outright."

Such a glimpse is the saga of Edmond Hall, "The New Adam." The story shows a depth of perception of the human mind that is amazing. Perhaps the minds of men work alike, but by some strange coincidence, Edmond Hall's life is closely paralleled by my own. I don't have extra-jointed thumbs and fingers, or a *distinctly* bisected mind, but the mind channels of Edmond Hall seem to be merely a summation and crystallization of my own meagre meditations. Therefore I begin to wonder what sort of person is this S. G. Weinbaum. Is this story merely a revelation of his own conception of his own meditations or is it an inspired revelation of some hidden representatives of a future super race? You see, I too am, well, a little queer. People seem to sense a difference in me, as they did in Edmond, and like him, I find myself bored by the general unthinkingness of all people.

Just what, who, where, and why is this S. G. Weinbaum?

T/5 Clyde Parish, DEML, R&IS,
AUS Rctg. & Ind. Sta.,
723 Broadway,
Little Rock, Arkansas.

We greatly regret that Stanley G. Weinbaum, the author of the story you like so much, and which so closely parallels your own life, has gone to that place where he sent his best loved character, Edmond Hall. He died in 1935, but his stories did not, and in publishing "The New Adam" we are paying our respects to one of the finest writers we ever knew. Our deepest regret is that he never lived to write the fine novel that was to follow "The New Adam." We thank you in his behalf for your compliments on his story.—Ed.

WHERE IS KRUPA?

Sirs:

Where is Krupa? His illustrations did more for some stories than the authors. Who rewrites E. R. Burroughs' stories? Or is the old master slipping? Of course, I have read all of Burroughs' stuff, and am an avid fan of his, but still the newer stories don't have the same fascination as they once did. And what kind of a mag are we getting now? If we must have half-naked girls, stick 'em on the back cover so we oldsters won't think that we are getting a spicy magazine.

You seem to have gone in for the Petty girl, and even the incomparable Paul has lost his touch.

Of course, we do not read the illustrations, but I remember scenes from AMAZING that curdled my blood before I got started on the story.

J. FRANK AUTRY,
602 North 23rd Street,
Corsicana, Texas.

Julian S. Krupa has returned to AMAZING STORIES, *having been honorably discharged from the U. S. Marines. Therefore, you will have your old favorite back, illustrating in his familiar brilliant style. Burroughs still writes his own fiction, and judging from the fan mail, still writes as well as he ever did. So far this year we have had covers featuring a warship and a dragon, John Carter fighting a skeleton man, a Fuqua gadget-robot, and now a Fuqua space ship scene. In fact, since February, 1942, (14 issues ago) we have had only one cover with a girl on it, and she was fully clothed. Perhaps you are referring to another magazine.*—ED.

MARCH ISSUE

Sirs:

I have just finished the March issue of A. S. and I think it was great. The stories are rated as follows:

1. "The Metal Monster"—swell.
2. "Victory from the Void"—good.
3. "The Light that Killed"—very good, more of this type of story.
4. "Shadow of the Spider"—very good for a new writer.
5. "Bring Back My Body"—so so.
6. "The Money Machine"—not bad.
7. "Bill Caldron Goes to the Future" stunk!

"The New Adam" was not rated because it was in a class by itself.

Front cover: swell, more of Fuqua on the covers. Back cover: very neat.

ROY O'CONNOR,
321 E. 25th Street,
New York, N. Y.

Apparently you missed the true significance of Paul Miles' story! It was the cleverest parody on science fiction we have ever read, and it was written in all sincerity. Read it over with this in mind, and if you don't get a dozen chuckles out of it, we'll write it on the blackboard a hundred times. —ED.

DOESN'T LIKE NEW ADAM

Sirs:

Where in the name of all that's profane did you get "The New Adam"? It was worse than "Planet of Ghosts" if possible. No sense at all.

1. "Bring Back My Body." Three cheers for O'Brien!
2. "The Metal Monster" by E. K. Jarvis. How's about more?
3. "Victory from the Void" by McGivern and O'Brien. Pretty darn good combination.
4. "Shadow of the Spider" by Lee Francis. Good job, Francis.
5. "The Light that Killed" by Ed Earl Repp.

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6. "The Money Machine" by Clee Garson.
7. "Bill Caldron Goes to the Future" by Paul Miles. Awful!
8. "The New Adam" by S. G. Weinbaum. Phooey!

With the exception of six and seven on my list, your stories were exceptional. More Jarvis and Lee Francis. Another O'Brien, too.

ROBERT WIRTH,
4539 Parker Ave.,
Chicago, Illinois.

Well, six out of eight exceptional—you are still our friend!—ED.

A PROTEST

Sirs:

This is a protest against that moronic, hare-brained series of articles known as "Scientific Mysteries" which you have been so misguided as to publish. Such stupidity is remarkable—no, it is unbelievable. Without stopping to think, you take a few shreds of evidence, plus a goodly hunk of imagination, and draw fantastic conclusions, which, if true, would turn our every-day world into a science-fictioneer's conception of Mars.

Take, for instance, your latest in this infamous series, "Totem of the Eagle." You take the fact that the eagle was used as an emblem in Imperial Russia, Greece, and Rome; that eagle feathers were used by two or three races; that feathers were used by the Polish knights and Sioux and Aztecs; that winged beings other than birds were depicted by ancient peoples.

To these facts you add that the American Indians of the East trained their hair in what you call a "bird-like" crest. (Do you really think it is bird-like?)

With these facts, and nothing more, you retire to your fabrication room and produce a masterpiece about an "eagle-totem." Perhaps you have not heard of the swastika-totem. It was used by the Aztecs and other American Indians. At the present time it still survives among the primitive races, particularly near Milwaukee, although formerly it was most used on the coast. It may also be seen in Egyptian designs, ranging from textile designs to temple ornaments. The Eskimos of Greenland also used the swastika. Oddly enough, this totem still survives at the present time in a limited district surrounding Berchtesgaden.

From these facts I deduce that one of the following conclusions must be true: 1) That the ancient Egyptians, Aztecs, and Eskimos must have been Fascists. 2) That Germany is populated by Aztecs, Indians, Eskimos, and Egyptians. 3) It may have been a coincidence, that all used the same design.

H. MALAMUD, I. BERKMAN, H. ROSOVIN,
122 Eames Place,
Bronx, N. Y.

Isn't it true that when dealing with the past of which there are so few relics, theory enters into reconstruction to a great degree? And isn't it true that these articles serve to arouse discussion and thereby help attain the real truth of the past of mankind? We know that L. Taylor Hansen

plans to publish these articles in book form, and such a contribution, however erroneous it may turn out to be, is of great value and interest to science, because of the collection and compilation of many related facts which can then be studied by other scientists and eventually may form a definite added link to the past.

As to the swastika, your editor could quote authorities who have dealt with this symbol at great length, and they do not arrive at your conclusions—although since your editor is a former Milwaukeean himself, we might agree that those primitive peoples are no proof of anything even if they do use the swastika—and besides they don't use it, but a reversed form, which is something quite different, we assure you.

Perhaps we will run an article in the future on the swastika.—ED.

Sirs: **REPAID**

Burroughs' "Skeleton Men of Jupiter" and Weinbaum's "The New Adam" more than repaid the magazine's selling price. Two masterpieces of science fiction would hardly describe them. I can only say that I regret I had not obtained a copy of "The New Adam" when it was originally published in book form. I didn't know what I was missing. As for Burroughs, he is always most welcome.

FRANK RADDEN, PVT.
Casual Co. No. 1, C.A.S.C. Area,
Camp Myles Standish, Mass.

Many of our readers have expressed the same thought, but we regret that the book is out of print.

With this we end Discussions for now.—ED.

MEET THE AUTHORS

(Concluded from page 231)

passing through the necessary red tape, and went in quest of a job. That was two years ago. Since then I have successively been an assembler, camera parts inspector, drill press operator, billing clerk, and order checker for a wholesale mail-order house.

At present writing, I'm 21, 6' 4" tall, weigh 162 lbs., and single—though I *did* have a narrow escape from marital entanglements a short time ago. I'm now pounding out science-fiction on a full time basis—or at least as long as my savings hold out. (Which won't be very long, thanks to income tax. Sympathetic editors please note.)

"Enigma of the City" is an example of the kind of work I like to do—strong, simple, human stories about ordinary people, their hopes, dreams, and plans, and the problems and complications which obstruct them. Anyway, I hope you readers will like it, even if only as an example. *I* certainly enjoyed being there on far-away Alpha Centauri with Reid, Susan and Doug Lain—suffering with them, fearing with them, dreaming their dreams!

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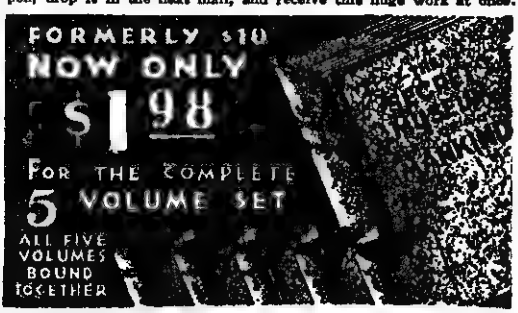

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CORRESPONDENCE CORNER

Jay Chidsey, Green Springs, Ohio, 14 years of age, would like to correspond with interesting people. He is especially interested in chemistry, would like old issues of AS, FA, and other sf mags, to buy . . . not trade. . . . Nora Carrell, Gen Del. Chouteau, Okla., would like to hear from boys in the armed forces from 18 to 20 years of age. She is 5'4½" tall, has brown eyes and hair. Will answer all letters promptly. . . . Russell Wilsey, 87-22-252 Street, Bellerose, New York, N. Y., has the complete "John Carter on Mars" series with the exception of two, "Thuvia, Maid of Mars," and "The Chessman of Mars." He will trade any of the former for the latter. He would also like to obtain the following quarterlies: Fall AMAZING and FANTASTIC, and the summer AMAZING. . . . Miss Tedde Marsh, 1435—36 St., Brooklyn, N. Y., would like to correspond with boys in all branches of the

service She is 21 years of age. . . . Jesse Hendrix, P. O. Box 321, Marked Tree, Ark., wants to contact readers of S-F mags interested in correspondence. . . . Pvt. Eugene Baxter, 918 T.S.S. Flight 73C, A.A.F. B.T.C., Clearwater, Florida, 21, 5'8", blond and weighs 160 lbs. Is in training as a Glider Pilot. Would like to hear from girls between the ages of 17 and 21. . . . Richard L. Stucke, 99 Summer St., Watertown, Mass., 18, 5'11½" tall, brown eyes and hair. Will answer all letters from those over fifteen. . . . James Warren Harris, Potrero, Calif., is anxious to hear from any one interested in mental telepathy, the power of thought broadcasting, etc. He is 27 years old and will answer all letters. . . . Charles R. Maytum, 100 Wayne St., Providence, R. I., has AMAZING STORIES from Dec. '39 to Dec. '42 for sale. He also has three quarterlies. He is also interested in boys saving unused U. S. stamps to trade or boys or girls saving mixed stamps which he can sell to them for very low prices. . . . Howard Moore, 12210 Meyers Rd., Detroit, Mich., would like to hear from all interested in becoming members of his recently founded club dealing with witchcraft, ghosts, mental telepathy, and other psychic phenomena. He will be glad to answer all questions and will reply to all letters immediately. Anyone between 15-19 everywhere welcome. He would also like correspondence with anyone on any subject. . . . R. H. Ramsay, Niche, No. Dak., wants information on science fiction authors. The name of each; year of birth and death, if dead; names of a few of his works, and characteristics. . . . Joseph M. Vallin, Jr., 5809—33 St., Washington, D. C., has the following Burroughs' books for sale: Carson of Venus, Pirates of Venus, A Fighting Man of Mars, Tarzan and the Lost Empire, Tanar of Pellucidar and Tarzan and the Ant Men. They are all in good condition. Price is 50c each or will trade. . . . George C. Price, 5 Stearns St., Massena, N. Y., wants readers to send 100 different stamps and 3-cent stamp. Will return 150 different, same quality. Send larger packages in same ratio if desired. Will answer all writers at once. . . . Eddy Moullee, Gervasio 107, Habana, Cuba, a Cuban young man, 17 years old, wants to correspond with American young people. He will answer all letters promptly. He will write in Spanish, English, French, Portuguese or Esperanto. . . . Roger Smith, England St., Ashland, Va., would like to play correspondence chess with anyone interested. . . . Wesley E. Hall, Rt. 10, Box 127, Fresno, Calif., is looking for members for his club, "The Amateur Science Club." Full information will be sent on request. Also, would like to correspond with anyone who has some annuals or quarterlies of F.A. or A.S. . . . Fantasy Fiction Field, 1702 Dahill Road, Brooklyn, N. Y., presents the 1941 yearbook of science fiction which lists all the titles of stories in alphabetical order of all the promags issued in 1941—including AMAZING, FANTASTIC ADVENTURES and the quarterlies. Price 20c.

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STORIES of the STARS

By MORRIS J. STEELE

Vega, In Lyra, The Harp

Vega is the star toward which our solar system is moving. It is 25 light years away, and the fourth brightest in the heavens

(See back cover)

LYRA, the Harp, is a constellation in the northern hemisphere, and is most easily observed in the month of August. It is distinguished by the brilliant star, Vega, brightest in the northern hemisphere, and fourth brightest in the sky.

The name Vega is a remnant of an Arabic phrase meaning "falling eagle." Altair (in Aquila), is a similar remnant of "flying eagle" and apparently the two are related in legend.

Technically, the star B. Lyrae is an eclipsing variable with a period of 12-92 days. E Lyrae is a double-double star (a binocular; or even the eye, shows a double star which can only be loosely connected, and a small telescope resolves the pair into two components).

Because of the very low densities of the two components, the system presents some very odd features which have drawn the interest of astronomers for many years of observation.

The Ring Nebula in Lyra (Messier 57), is the largest and brightest of this type of nebula, and merits all the attention given it. The Brittanica gives Messier 57 as a ring nebula and Charles A. Young, Ph.D., LL.D. calls it an annular nebula, but qualifies it by saying it can be discerned in a small telescope as a small hazy ring.

Vega itself is a giant white or blue star, certainly many times larger than our own sun, and it is twenty-five light years away and gives out forty-five times as much light.

Our solar system is traveling directly toward this star at the rate of four miles per second.

The constellation is composed of Beta, Gamma, Epsilon and Zeta, in addition to Vega. Epsilon and Zeta are fourth magnitude stars; Beta (a variable) and Gamma are third magnitude stars. There are other minor stars in the group.

According to the legends, Lyra is the lyre of Orpheus with which he charmed the stern gods of the lower world and persuaded them to restore to him his lost Eurydice.

Artist Frank R. Paul has painted his conception of a scene on one of the planets that circle Vega, and given his impression of the inhabitants and mode of life of those inhabitants.

Giant Vega, so brilliant that human eyes could not look upon it, would loom vastly in the sky, and queer halo effects might be observed by the clash of the light of the double-stars and the heavy, gas-filled atmosphere's effect on filtering and changing the light.

The sky might be a brilliant yellow in color, caused by chemicals and gaseous elements in suspension in it. This planet would be a very active one, and constant eruptions and the work of geysers of both melted rocks and metals and water vapor would sculpture the landscape into fantastic shapes.

These geysers would form huge cones of solidified materials of brilliant colors. Their vapors would form amazing plumes above them.

All moisture would come from the steam thrown out in this manner, and its condensation would form local rains which would water the hot-house type of vegetation which could easily grow here in profusion, providing both food and materials for shelter for the inhabitants.

Hot worlds tend to develop either huge monster life, or insect life. On the world circling Vega, with its low density, the probability would be definitely on the side of insect life rather than animal. Thus we would find that the inhabitant of this world would be giant insects, capable of carrying a human being on its hard-shelled back. These insects would be unlike Earth insects insofar as the ability to think independently is concerned. They would be human-like in this respect, possessing good reasoning power.

Thus they would be able to turn to their own use, other, less intelligent insects which would also develop as a result of the presence of vast vegetation areas. These might be huge bees which could be housed in giant hives and made to produce a food staple of honey taken from the giant orchids of the Vegan jungles.

The inahbitants of this world would live mostly underground, in huge burrow-like cities constructed largely without the use of machinery, since insects are able to dig very well with mandibles and armored legs.

There would be no need to heat these underearth cities, since a cold climate would be unknown.

Although this planet might be hundreds of times larger than Earth, an Earthman visiting it would not weigh too much to move around because of the low gravity attraction due to much less density. In fact, he might have trouble remaining on the surface—even of seeming rock. For this world is very unstable indeed.

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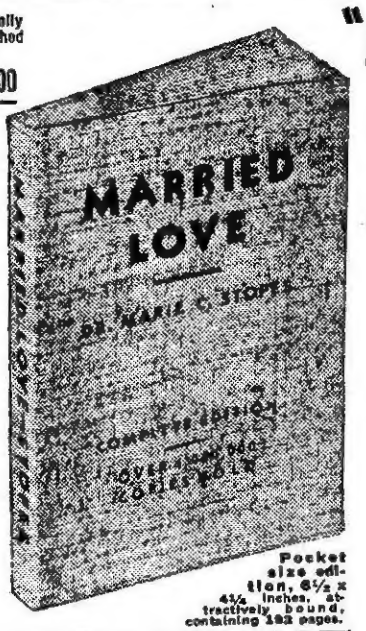

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